# THIS WEEK'S National Petroleum NEWS

## Index to Coming Meetings

*Tennessee Oil Men's Association*, Hermitage Hotel, Nashville, Aug. 19, 20.

*American Petroleum Institute*, Central Motor Transport Group, Mayo Hotel, Tulsa, Okla., Sept. 1, 2, 3.

*North American Gasoline Tax Conference*, King Edward Hotel, Toronto, Ont., Sept. 2, 3, 4.

*American Petroleum Institute, Division of Production, Southwestern District*, Buccaneer Hotel, Galveston, Tex., Sept. 4, 5.

*American Chemical Society*, Hotel Gibson, Cincinnati, O., Sept. 8 to 12.

*Ohio Petroleum Marketers Association*, Deshler-Wallick Hotel, Columbus, O., Sept. 17.

*National Petroleum Association*, Hotel Traymore, Atlantic City, N. J., Sept. 17, 18, 19.

*National Safety Council, Petroleum Section*, Pittsburgh, Pa., Sept. 29 to Oct. 4.

*International Petroleum Exposition and Congress*, Tulsa, Oct. 4 to 11.

*Big Four State Jobbers Convention*, (Missouri, Iowa, Kansas and Nebraska) Kansas City, Mo., Oct. 14, 15, 16.

*National Association of Credit Men, Petroleum Refiners Division*, St. Louis, Mo., Oct. 20, 21, 22.

*Independent Oil Men of America, Marketing Congress and Exhibit*, Statler Hotel, St. Louis, Mo., Nov. 2, 3, 4, 5.

*American Petroleum Institute*, Stevens Hotel, Chicago, Nov. 10 to 13.


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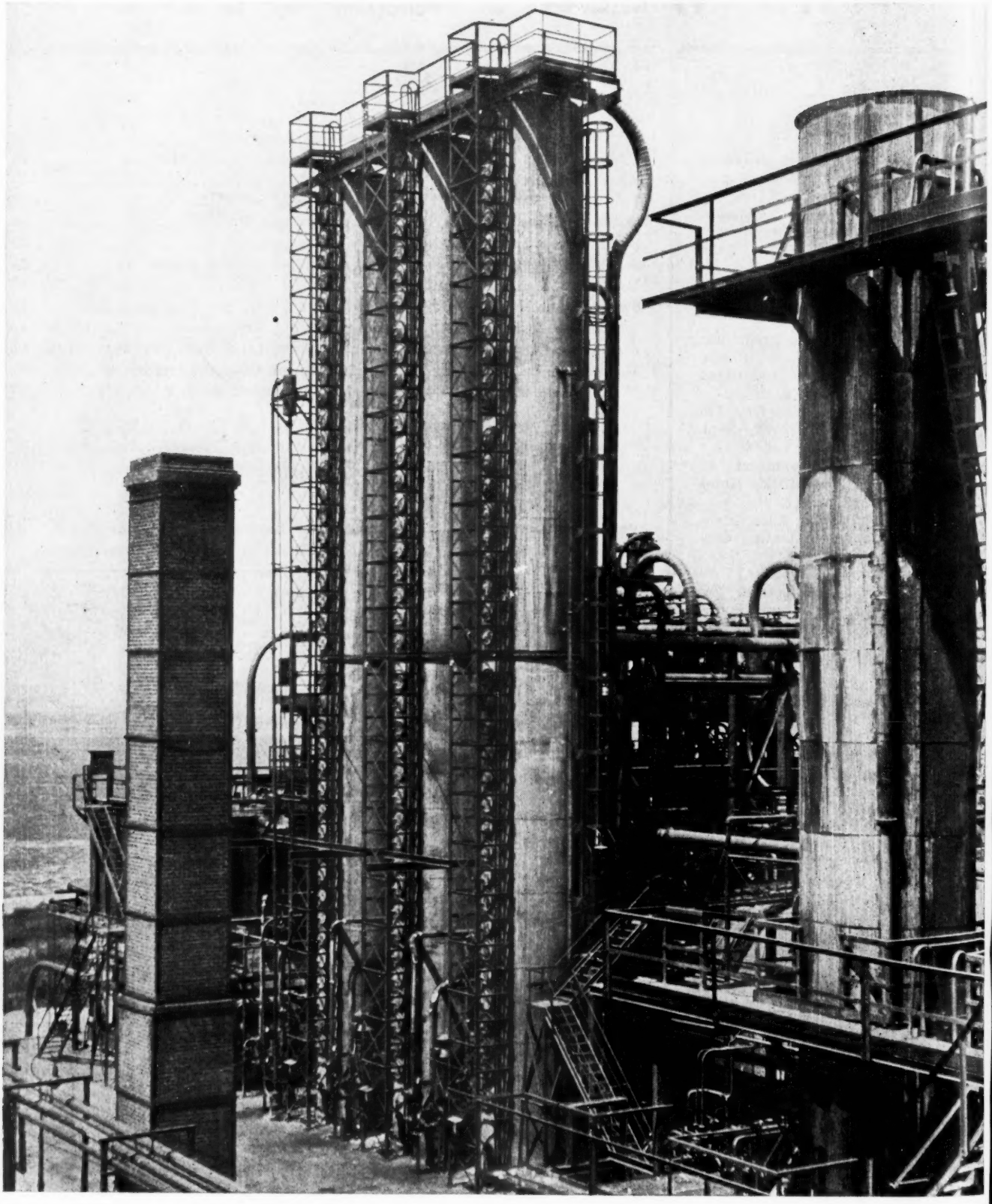
# How Nation's Gasoline Demand Is Met



REFINERS have kept pace with the demand for increased quantities of motor fuel by the installation of the most modern equipment for fractionation and cracking. The giant unit shown here is typical of the latest design in bubble towers, and is installed in the plant of the Associated Oil Co. at Avon, California. What looks like a row of buttons extending up the side of each tower are manhole covers, through which workmen may gain access to each plate for cleaning and repairs.

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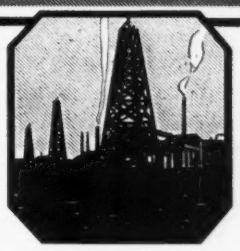

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# 85 Per Cent Gasoline Yield By I. G. Hydrogenation

By Arch L. Foster
N. P. N. STAFF WRITER

A HYDROGENATION plant capable of producing 2000 barrels of motor gasoline per day will cost about $5,000,000 to build. This is the estimate of Dr. Butefisch, German engineer in charge of the I. G. Farbenindustrie's Leunawerke plant for hydrogenating oil and coal at Merseburg, Germany.

Such a plant will produce a yield of about 85 per cent motor fuel from brown coal tar, 15 per cent of non-condensable gases and no coke.

This and other information in this article was given recently to an American engineer who visited the Leunawerke at Merseburg. The data given this engineer throws considerable light on the operations of the I. G.

While the process may not yet be considered a standardized full-fledged industrial operation with every difficulty solved and removed from the realm of likelihood, a very substantial progress has been made and the plant is in successful operation, at least from the point of view of the oil technologist.

The accompanying flowsheet shows the essential steps in the process as it is now being operated. The more important temperatures, pressures, and properties of reaction products are included on the diagram as aids to clarifying the main points of the process. The principles of operation shown in this diagram are identical with those indicated in an earlier sketch of the process by Dr. F. Bergius, which was published in 1927, when the method was still in the small or medium-scale stage.[1]

According to information given at the Merseburg plant the finished gasoline made from brown coal tar has an initial boiling point of 122 to 160 F., and an end point of 392 F. Such a fuel compares favorably in distillation range with gasolines manufactured in this country except the initial is somewhat higher than those of American fuels as sold at present.

The plant is described as consisting of 32 units, each provided with two sets of 4-inch diameter tubes, 1000 feet long, interconnected in a furnace which are in turn connected to a vertical reaction chamber 58 feet high and 2½ feet in diameter. The reaction

## First Details on Hydrogenation

THE accompanying article gives the first authentic detailed information made public on the Hydrogenation process as it is being developed on a large scale in Germany. It presents a definite picture of what the process may be expected to become when fully developed.

Progress of the experimental work leading to a practical commercial application of the hydrogenation process in this country should interest every man in our industry.

Given reasonable costs which will permit the use of the process at present prices of oil products made under present methods, it seems certain that a hydrogenation plant will form a most important part of the refinery of the future, and that the refinery will be centered about this plant. In case these costs cannot be reduced to compete with present methods, commercial utilization of the process of hydrogenation doubtless will be postponed until economic conditions or improvements in technology enable it to become a factor in the refining industry.

[1] NATIONAL PETROLEUM NEWS, Jan. 26, 1927, page 90.

chamber is heavily insulated and placed within a concrete box.

The capacity of each unit, which is now running on coal tar oil from brown coal or mixed with petroleum oil and at times operates on gas oil, is about 2 tons or 14 barrels per hour. The operators have ceased running the plant for the time being at least on mixtures of coal and oil.

The yield of gasoline was stated to be about 85 per cent of the brown coal tar, with a gas loss of 15 per cent and no coke formation. For every 100 pounds of coal tar or oil they add approximately 8 pounds of hydrogen. They use approximately one-half to one per cent of a catalyst by weight of the oil and it is mixed therewith before pumping into the heating coil.

A description of the flow chart is as follows: The oil is pumped through a heating coil at a pressure of 3000 pounds and is heated therein to a temperature of about 800 degrees F. At the same time hydrogen gas is pumped through a separate heating coil and is raised to a temperature of about 800 degrees F. The oil and hydrogen mixes in the reaction chamber and the heat of reaction between the oil and hydrogen raises the temperature of the mixture to about 850 degrees F.

The mixture of oil and hydrogen after reaction passes through a cooling coil and then to a receiver where the gas is separated and the oil passes to a still maintained at atmospheric pressure.

The analysis of the coal tar entering the heating coil shows an initial boiling point of 482 degrees F. and an end point of about 750 degrees F. The product leaving the first stage of hydrogenation had an initial boiling point of 302 degrees F and end point about 750 degrees F.

The first stage hydrogenated product was distilled into three fractions: (a) crude gasoline, (b) an intermediate fraction boiling between 300 and 572 degrees F. and (c) residue boiling between 572 degrees and 770 degrees F. The residue last mentioned is mixed with fresh coal tar and is recycled through the first stage hydrogenating step.

The intermediate oil boiling between 300 and 572 degrees F. is passed into a second stage hydrogenating unit being pumped through a heating coil wherein it is heated to a temperature of about 900 degrees F. At the same time hydrogen is being heated in another coil to a temperature of 900 degrees F. Both oil and hydrogen mix in a reaction chamber where the catalyst is suspended.

In this chamber which is heavily insulated, the reaction temperature of the mixture of hydrogen and intermediate oil reaches approximately 950 degrees F., this being due to the giving out of heat or exothermic character of the reaction. The product leaving the reaction chamber is passed through a cooling coil and into a receiver where the pressure of 3000 pounds is reduced to about atmospheric pressure as the oil passes into the distillation apparatus with the material that comes from the first hydrogenerator of the tar and residue.

The atmospheric pressure still for the two hydrogenated oils is about one-half mile from the high pressure plant.

The crude gasoline is treated with 98 per cent sulfuric acid at the rate of 3 pounds to 15 pounds per barrel, depending upon the type of oil which they are processing, and extent of hydrogenation. The acid treated oil is neutralized with caustic soda solution in the usual manner.

The chemically treated crude gasoline is fractionated into finished benzine of an end point of 392 degrees F. A sample of this crude benzine from the re-run stills showed a good odor and a color of about 22 Saybolt. The bottoms from the distillation was a brownish black oil which was mixed with the intermediate oil to be re-hydrogenated in the secondary hydrogenerator or light oil hydrogenating unit.

Engineers stated that when the hydrogenating unit was utilized for gasoline production that the lubricating oils were of zero value and that when they were producing lubricating oil they used quite different catalysts and lower temperatures of treatment. It was said that they could produce many interesting lubricating oils by proper control of conditions, but that you could not produce gasoline and lubricating oil simultaneously.

The hydrogen which is used in the hydrogenating process is produced by two processes. (a) the water gas and (b) producer gas. It was stated that the cost per cubic meter was 3 Pfennings (¾ cent). From another source where they are hydrogenating pitch at Duisburg-Meiderich which is part of a coal tar distillation plant, the cost per cubic meter of hydrogen from producer gas is 4 Pfennings (1 cent), while the plant near Berlin which is hydrogenating naphthalene to tetralin, the cost of hydrogen was reported to be 10 Pfennigs (2½ cents) per cubic meter.

For each pass of the tar, intermediate oil and acid treated crude gasoline bottoms through the two hydrogenating units, the yield of crude gasoline was about 50 per cent.

The distillation units for the hydrogenated oil from the three sources were highly complex due to the fact that they used as a heating means super-heated water at a temperature of about 800 degrees F which, surrounded the heating coils through which the oil passed. It is stated that if they fired the coils directly a portion of the oil would carbonize. This being due to the fact that the hydrogenated oil was highly sensitive to heat, hence they have worked out this close temperature and mild heating control of distillation.

As an indication of the immense amount of work that has been carried on by the I. G. on this problem, it has been disclosed that this company alone has over a thousand patent applications on the hydrogenation of oil, and that of all the patents issued in England in 1929 the I. G. Co. owns about 35 per cent.

According to information from reliable sources, one prominent engineer has stated that the I. G. spent some $24,000,-

(*Continued on Page* 30)

# The Editors' Viewpoint

## Quack Tonics to Help Station Sales

WHEN business in general retail lines is slack, there always spring up any number of quack schemes to artificially stimulate trade, the advice of whose backers and promoters should be looked upon with as much skepticism as one would give the advice of a quack physician.

Such schemes are being offered now as bait to owners and operators of service stations. Two have come to light within the past week or so and others are probably being worked over the country.

In southern Ohio what is known as the Kemper Merchandising System, originating in Louisville, offers a plan to the station owner to stimulate his gasoline sales by giving away one gallon of gasoline with five sold to customers who buy a book of coupons, known as Goodwill and Thrift coupons. The coupon books sell for $1.95 to the customer, $1 of which is said to go to the promoters of the scheme.

The coupons call for the giving away of a great variety of merchandise and services in connection with sales. Among other things the book calls for giving away of 50 gallons of free gasoline, at the rate of one for each five gallons bought, on the part of every dealer who has come into the plan. In other words it means the giving away of a fifth of his gross income on this business. If his gross margin of profit on his gasoline is a fifth of his cost price, then he just breaks even on that portion of his gasoline sales to holders of coupon books.

For example, if he has an 18-cent retail price and a 3-cent operating margin, then he sells five gallons for 90 cents on which his margin is 15 cents. Then he gives that margin away in the form of a sixth free gallon which has cost him 15 cents.

However, if the station has a margin that is less than a fifth of its cost price on gasoline, then it is directly out of pocket on every sale made under this plan of stimulating business. If the retail price is 20 cents, and the gross margin to the station three cents, then the transaction becomes as follows: The five gallons are sold for $1, there being 15 cents gross profit in the deal. The station gives away, however, another gallon, which has cost it 17 cents. It is two cents loser on the deal in actual cash, to say nothing of overhead expense.

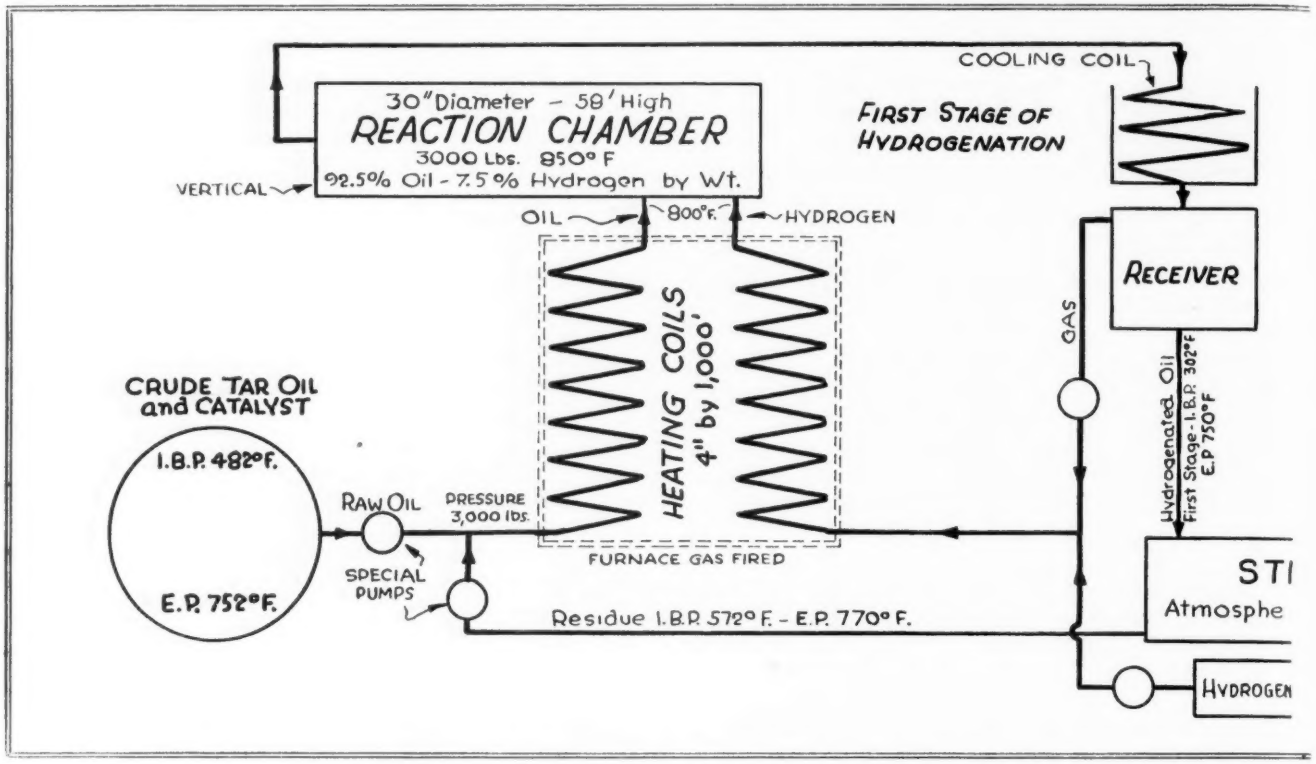
Where the station has a greater gross margin than a fifth of its cost price, it is, of course, a little ahead in actual money taken in under such a deal. For example, if it has a retail price of 20 cents, of which the gross margin to the station is 5 cents, its gift of a gallon free for five sold leaves it 10 cents in cash ahead on the deal. That 10 cents is the margin of profit in a sale involving six gallons of gasoline; and it is going to take greatly stimulated sales of gasoline to make up the profit that could be made on sales of much less volume, where all the gasoline was sold.

Some of the Cincinnati stations that went into this scheme have already found that increased gasoline business is a liability and not an asset to them.

Such sales stimulating schemes as these have some chances for success in lines where the general consumption of commodities can be very greatly increased by the scheme. But with gasoline and motor oils it must be born in mind that the general volume of gasoline or oil sold in a community cannot be increased any perceptible per cent by any such plan. A man does not buy more gasoline than he can use because he gets it at a bargain, nor does he drive his car any noticeable extent more because he considers his gasoline is a bargain. What does happen is that the stations that do offer the free gasoline for coupons, or that sell at under the general going price in the community do take business away from other stations to some extent. If this loss of business to other stations becomes too great they reduce their prices or make some move to meet the competition in kind, and an unstable local marketing situation develops.

It is a false theory that gasoline business at a station can be carried on at no profit because of the extra business it brings in motor sales or sales in other departments of the station. The gasoline business is the biggest source of profit at nine out of ten stations at least. To give up the profit on this business throws a burden on other departments in a station that it is almost impossible for them to make up, even with greatly stimulated business.

The other sales stimulating scheme that has come to NATIONAL PETROLEUM NEWS' attention is one where the station sells a $10 coupon book, which, when used up in trade at the station, gives the purchaser the privilege? to buy a watch for $2.98. This is being worked in West Virginia. The customer of the station who pays $2.98 for the watch he will receive under this racket, it is feared, will not continue as a friend and customer.




**Diagrammatic Flowchart of the I. G. Farbenindustrie's Two-Stage Hydrogenation**

(*Continued from Page 28*)

000 more, last year than was received from the sale of hydrogenation products, which included expenditures on all experimental work. In referring to the operations at Merseburg one competent engineer says that the process is very expensive to install and the costs of operation and hydrogen production are high. "Technically it is a triumph of the first magnitude, but industrially as now operated it is highly expensive."

In 1926 Dr. F. Bergius estimated[2] that a plant for the production of 50,000 tons of oil per year by this method would cost in the neighborhood of $2,000,000 per year. In this estimate he set the depreciation rate of such a plant at 10 per cent per year, which agrees fairly well with estimates on a great deal of modern refinery equipment with the exception of cracking equipment, which is usually considered to deteriorate at a higher rate.

On account of the high temperatures and pressures used in hydrogenation it would seem reasonable that depreciation of the equipment would parallel more nearly that of cracking materials now employed, and that ten per cent is hardly high enough. However, the process is still in such a state of change and its operation on a large scale has been carried on for such a comparatively short period of time, that it is likely the available data are insufficient to show just what this figure should be. Certainly no data have been published which would support any definite figures.

This estimate agrees fairly well with one made recently by another German engineer, who believes that the cost of erecting hydrogenating units necessary to produce 700,000 barrels of motor fuel per year, (about 100,000 tons), should be of the order of $5,000,000.[3]

In his estimate referred to above Dr. Bergius further stated that, with coal at 10 marks (about $2.43) per ton, the total manufacturing cost for a ton of hydrogenated oil would be about 90 marks, or $21.60. Considering that the following products would be made and marketed, from this ton of oil, gasoline, diesel oil, lubricating oil, and fuel oil, he believed at that time that the sale price of the refined oil would be between 140 and 190 marks, or $34 to $46.

Since it appears that present operations have disclosed the fact that gasoline and lubricating oils cannot be made properly in the same operation, these estimates are of doubtful value in arriving at reasonable conclusions as to costs.

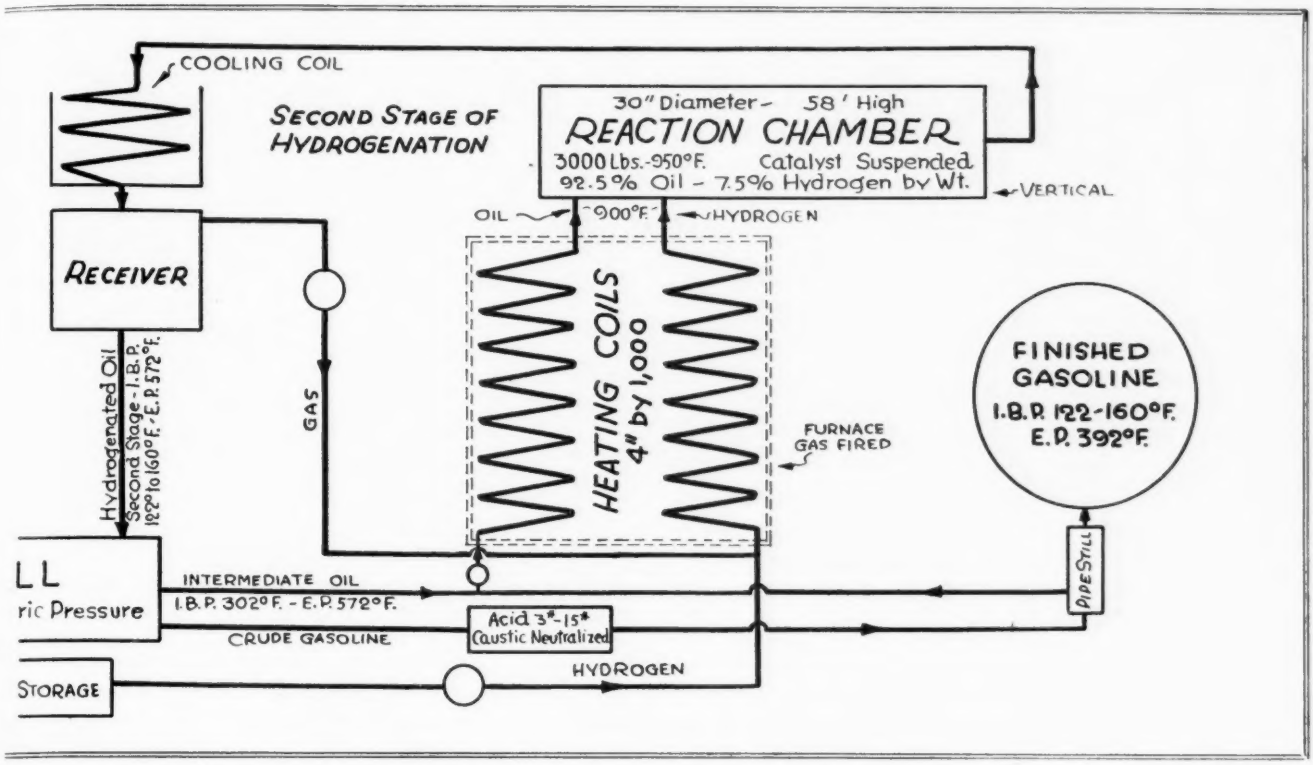
Dr. Bergius stated at the time that he gave those estimates unwillingly, and that they could not be verified until a large installation had been built and operated for a time sufficient to give dependable data on which to base definite conclusions. In any case these figures referred to German conditions operating on coal, and their relation to estimates of costs, operating on fuel oil or heavy cracked residuum under American conditions, is not obvious.

These estimates were translated by Fieldner[4] to represent a cost of 26 cents per gallon of gasoline; he pointed out that this price referred to German conditions, and was of the opinion that this cost in the United States would be of the order of 40 to 50 cents per gallon.

[2] National Petroleum News, Feb. 2, 1927, page 81.

[3] Private Communication.

[4] See Resume of Fieldner's paper, National Petroleum News, Jan. 16, 1929, pages 69-73.




**Plant For Liquefying Brown Coal Tar, at Leunawerke, near Merseburg, Germany**

Fieldner's figure agrees with that quoted as emanating from Dr. Franz Kind, general manager of the Petroleum Corp., Lichtenberg, that the present cost of hydrogenated gasoline, as far as he could determine, is about 25 cents per gallon.

Although definite information regarding the properties and quality of hydrogenated motor fuels is meager, samples have been collected from filling stations, analyses of which gives some idea of the more important properties. According to one observer, the sulfur content of hydrogenated gasoline sold in Germany last year, manufactured by the I. G. process, varied from 0.50 per cent to 1.00 per cent. A sample taken from a filling station gave the following analysis:

| | |
|---|---|
| Color | Deep Yellow |
| Unsaturates | 3.4% |
| Aromatics | 15.0 |
| Naphthenes | 30.0 |
| Paraffines | 51.6 |
| Initial Boiling Point | 142°F. |
| End Point | 390°F. |

Analyses of representative motor fuels sold in Germany and other parts of Europe, to determine their relative detonation tendencies have shown that the knock rating of a motor fuel so manufactured may depend in great measure on the nature of the charging stock. Typical analyses give the following ratings of representative fuels:

| Fuels | Benzol Equiv., % |
|---|---|
| Benzol Motor Fuel | 45–50 |
| Shell Gasoline | 30 |
| Dapolin Gasoline | 32 |
| Hydrogenated, from brown coal | 38 |
| Hydrogenated, from Hanover crude | 24 |

Inasmuch as experimenters long ago found out that the products that may be derived from coal and other charging stocks may be varied between wide limits according to the conditions of operation, it may well prove to be true that the knock rating, volatility and other important properties of motor fuels may be governed at will by manufacturing conditions.

One of the I. G. engineers has stated that there seemed to be no end to the number of things that can be learned about hydrogenation, and that hardly a day passes that they do not uncover some important new phase of the process.

Technically speaking, then, it would appear that the surface of the possibilities of the process has only been scratched, and that even those in closest contact with the detailed results obtained in Europe and America are in no position to estimate its possibilities.[5]

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**To Discuss Airplane Fuels**

CLEVELAND, Aug. 11—Aircraft fuels will be discussed at a meeting of the aeronautical division of the Society of Automotive Engineers to be held at Chicago Aug. 28 during the air races.

Fifteen minute talks will be given by the following: E. E. Aldrin, Standard Oil Co. of New Jersey; C. M. Larson, Sinclair Refining Co.; C. S. Fliedner, Navy bureau of Aeronautics; and W. A. Parkins, Pratt & Whitney Aircraft Co.

---

**Urges Patience With Code**

CLEVELAND, Aug. 8.—Following the first anniversary of the adoption of the code of ethics July 25, W. R. Boyd, Jr., vice president of the American Petroleum Institute, has issued a statement urging tolerance and patience on the part of code signers.

[5]For a comprehensive discussion of catalysis as applied to oil hydrogenation see NATIONAL PETROLEUM NEWS, July 24, 1929, page 69, article in 3 parts, by Dr. Krauch.

# Buckeye Pipe Line May Transport Oil to Gulf Refineries

TULSA, Aug. 9

THE Gulf Oil Corp. is negotiating with the Buckeye Pipe Line Co. to arrange for transportation of crude oil through the latter's system from a point near Lima, O., to Toledo and the eastern boundary of Ohio. Such is the report here this week.

Gulf has under construction a line from Oklahoma originally planned to go to Toledo, Pittsburgh and Cincinnati. The accompanying map shows the original plan. If the rumored deal with Buckeye goes through, considerable construction will be avoided.

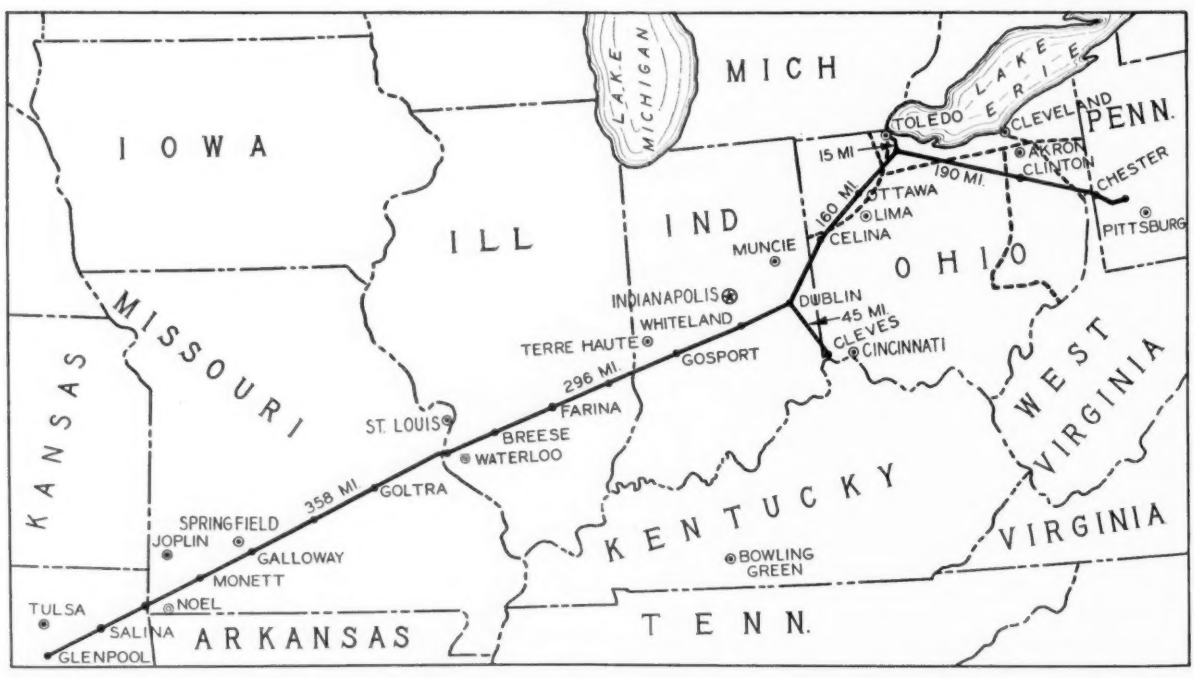
The Buckeye would take oil from the Gulf's line, deliver it to the Toledo plant, until recently owned by the Paragon Refining Co. From the Buckeye line at the eastern line of Ohio, Gulf would either build a short line to Pittsburgh, or possibly arrange for through shipments via other lines going into the Pittsburgh district.

The line is 10-inch from Glenpool, Okla., to Dublin, Ind. At that point the line branches. One part, eight-inch size, goes to Cincinnati, where a new refinery will be built by Gulf interests. From Dublin to a point west of Lima, a 10-inch line will be laid and it was planned to lay eight-inch from there to Toledo and thence to Pittsburgh where another new refinery will be built by Gulf. This construction is the part that would be spared if the arrangement with the Buckeye is made.

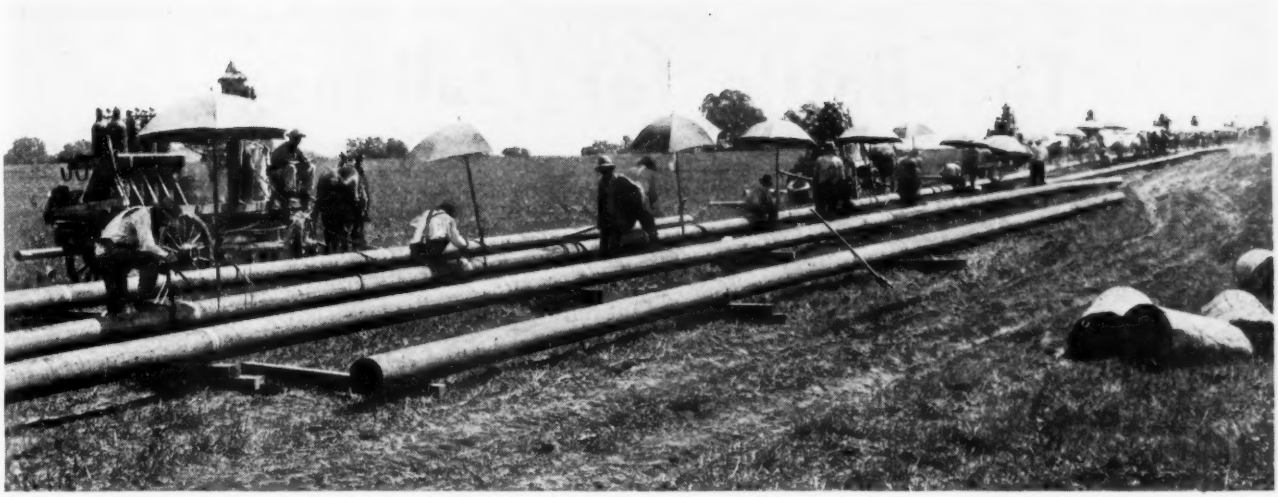
Stations are to be an average of 50 miles apart on the new Gulf line. Each will be equipped with two diesel type McIntosh-Seymour engines of 300 horsepower size. Worthington reciprocating pumps will be installed. National Tube Co. seamless pipe will be used, except at some of the river crossings, where wrought iron pipe will be laid. Most of the work will be done by the Gulf pipeline organization, with only a few minor contract jobs.

Surveys have been completed and the right-of-way at the end of this week had been purchased two-thirds of the way. On the Oklahoma end, one crew was at work and a little more than seven miles had been laid and backfilled. Another crew was working east from Monett, Mo. and a second was to start within a few days in Illinois. Other crews will be added soon and a tentative completion date of Feb. 1 has been set.

The Oklahoma end of the project is under the direction of E. T. Gatrell, manager of the Gulf pipeline system in Oklahoma and Kansas. He will complete the project as far as Monett. From there east, E. C. Kincade, who manages the Gulf lines in Texas, has charge. Temporary offices are maintained in St. Louis.




**Original plan for the Gulf Oil Corp.'s new pipe line system, now under construction. Dotted lines shown in Ohio indicate the old Buckeye Pipe Line Co. crude oil system, which may be used in part in the Gulf system, in place of building new line throughout in this state**



**Welders at work on the twin 10-inch lines of the Ajax pipeline. The umbrellas are not just atmosphere. Oklahoma is not above their use for that purpose, but in this case they are much needed sun shades**

# Ajax Pipe Line Construction Speedy

TULSA

CONSTRUCTION of the Ajax Pipe Line moves apace. Two large gangs are now at work and 80 miles of the pipe is already laid. One of these gangs is working on the south end near Jenks, Okla., and the other is starting near the town of Seneca, Mo. The former is stringing north out of the Glenn pool and the latter is working south into Oklahoma. Two more crews are to be put on in Missouri in the near future and the double 10-inch line will be laid in record time.

The most difficult accomplishment to date has been the crossing of the Arkansas river above Jenks, Okla. Like most of the rivers of the southwest, it is the flood stage of the Arkansas that must be considered. Normally it is but a trickle in a wide expanse of sand. Spring rains however, can quickly make of it a surging mass of fast moving mud.

The pipe used at the crossing weighed 54 pounds to the foot. The joints were welded together on the bank in strings 1200 feet long. About each weld were placed four steel straps running parallel to the string. These were welded to the pipe. To further secure the joining points in the string, 1600-pound river clamps were bolted over each weld. These clamps also serve as anchors in the sandy river bed.

When the two strings were complete one end was placed on a barge and the whole was pulled to the far side. Three International tractors with Seminole winches were used for this purpose. A great bend upstream was made with both strings. A sandbar was ditched, but the great weight of the river pipe and the large clamps will cause the two lines to bury themselves in the channel.

## Texas Proration Order To Be Issued Soon

By Telegraph

HOUSTON, Aug. 12.—Reliable advices from Austin indicate the railroad commission expects to issue Wednesday or Thursday its formal order inaugurating statewide proration effective Aug. 25. All districts except the Gulf Coast, Laredo and Big Lake fields are agreed on curtailment committee production figures.

Van Field in east Texas has been allowed 2500 barrels more production than originally proposed bringing the maximum to 27,500 barrels. Unless further adjustments are necessary in curtailment set-ups the state prorating maximum will approximate 736,000 barrels.

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### Bolsa Chica Gets Kettleman Lease

LOS ANGELES, Aug. 8.—The Department of the Interior has authorized a lease covering 1840 acres on the north dome of Kettleman Hills to the Bolsa Chica Oil Corp. The company has held a permit on the tract. The Geological Survey also has notified the company that its Ferguson No. 24-1 shut in last March is in the Temblor horizon and hence the company will obtain a part of the oil from present producing wells as drainage compensation.

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### Buys Hall Properties

OKLAHOMA CITY, Aug. 9.—The Kessler Petroleum Corp., of Oklahoma City, has bought the interest of F. C. Hall in the Oklahoma City field holdings of the first Hall & Briscoe. Two producing wells and eight drilling in proved territory are included. The price was reported to be two million dollars.

# The Battle for Gallonage In the Hoosier State

Cleveland

SALES armies for the larger gasoline distributors in Indiana waged an offensive campaign over the winter that strengthened their position in the ever present battle for gallonage.

Sixty-three per cent of Indiana, speaking in terms of gallonage, was occupied last December by 21 distributors, the smallest of which sold over 100,000 gallons a month. By April these forces were in command of 82 per cent of the state, but a little ground was lost in May. The statistical position of the army was determined from the Indiana Petroleum Association's report for December through May of dealers paying the state gasoline tax.

It must be borne in mind that the tax in Indiana is paid on tank car receipts and, consequently, reports for any company for any particular month may include gasoline put into bulk storage. Over a period of month the figures will reflect the company's relative position as regards its gallonage.

Among these larger distributors, General S. O. Indiana retained title of commander-in-chief by virtue of share of the business controlled. In December the general was monarch of about a quarter of the state's business, and in May he was holding more than a third of the territory.

Aside from the customary sales effort, Standard Oil's increase is attributed among other things to improved service stations. For some time Standard has been building larger stations, with inclosed lubrication facilities at various points throughout the 11 midwestern states. Indiana has received her share of these larger stations.

Indiana, like her sister states, is well acquainted with sell outs of oil jobbers. Some oil companies there have expanded their business by purchasing existing companies rather than establishing new stations.

One of these purchases answers in some measure the pertinent question as to whether the big oil company can retain all the business obtained through purchasing another organization. The case in point is the Shell Petroleum Corp. buying the Western Oil & Refining Co.

In the fall of 1929 the sale was made. Shell acquired about 45 bulk plants and 213 service stations in Indiana and Ohio. From an internal sales standpoint the purchase made no difference in Shell's volume. Western Oil for several years had been selling Shell gasoline under its own brand of "Silver Flash." The change was external. About 45,000,000 gallons a year was changed from Silver Flash to Shell in the tax reports.

In the accompanying table is listed the Mid-Western Petroleum Co. doing around half of one per cent of the state's total. The figure is insignificant in itself. But thereby hangs a tale, for the company was organized only about three months before the period covered in the report.

The Mid-Western organization was formed by employes of the former Western Oil & Refining Co. In about three months its sales had jumped to more than 100,000 gallons a month; nine months later it was selling over 250,000 gallons a month. The supposition may be made that it drew some of the business of the former Western Oil company.

## Who Has the Gasoline Business in the Hoosier State?

(Figures Taken From Report of the Indiana Petroleum Association)

| Company | December Gal. | % | January Gal. | % | February Gal. | % | March Gal. | % | April Gal. | % | May Gal. | % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total for State | 33,868,797 | | 29,602,859 | | 27,669,847 | | 35,625,974 | | 35,983,641 | | 40,132,637 | |
| S. O. Indiana | 8,002,861 | 23.63 | 8,948,888 | 30.23 | 8,153,966 | 29.47 | 11,398,472 | 31.99 | 12,810,918 | 35.60 | 13,786,887 | 34.35 |
| Shell Petroleum Corp.[1] | 3,614,050 | 10.67 | 3,211,218 | 10.85 | 3,139,954 | 11.38 | 3,787,759 | 10.62 | 4,415,360 | 12.27 | 4,212,939 | 10.50 |
| Indian Refining Co. | 2,352,858 | 6.95 | 1,974,839 | 7.42 | 1,479,033 | 5.34 | 2,855,088 | 8.01 | 2,622,711 | 7.29 | 2,741,661 | 6.83 |
| Sinclair Refining Co. | 1,895,889 | 5.60 | 1,673,614 | 5.65 | 1,495,287 | 5.40 | 1,884,589 | 5.29 | 2,247,420 | 6.25 | 2,454,003 | 6.11 |
| Supreme Oil Co.[2] | 587,213 | 1.73 | 684,276 | 2.31 | 649,322 | 2.35 | 762,938 | 2.14 | 731,157 | 2.03 | 845,948 | 2.11 |
| Lincoln Oil Refining Co. | 553,363 | 1.63 | 494,306 | 1.67 | 472,746 | 1.71 | 647,548 | 1.82 | 622,912 | 1.73 | 1,457,180 | 3.63 |
| Mid-Cont. Pet. Co. | 608,335 | 1.80 | 529,189 | 1.99 | 485,791 | 1.76 | 676,117 | 1.90 | 728,146 | 2.02 | 788,058 | 1.96 |
| Indiana Farm Bureau | 158,136 | .47 | 175,024 | .59 | 222,090 | .80 | 552,156 | 1.55 | 728,464 | 2.02 | 652,397 | 1.63 |
| Pure Oil Co. | 560,115 | 1.65 | 516,991 | 1.75 | 477,023 | 1.72 | 645,084 | 1.81 | 582,738 | 1.62 | 643,013 | 1.60 |
| Texas Oil Co. | 256,711 | .76 | 266,398 | .90 | 322,419 | 1.16 | 351,183 | .99 | 468,530 | 1.30 | 622,351 | 1.55 |
| Refiners Oil Co. | 422,647 | 1.25 | 408,448 | 1.38 | 394,755 | 1.43 | 492,701 | 1.38 | 523,832 | 1.46 | 611,634 | 1.52 |
| Johnson Oil Refining Co. | 316,389 | .93 | 285,762 | .96 | 287,391 | 1.04 | 502,830 | 1.41 | 393,703 | 1.09 | 557,731 | 1.39 |
| Gulf Refining Co. | 263,801 | .78 | 236,832 | .80 | 210,013 | .76 | 328,747 | .92 | 372,871 | 1.04 | 394,690 | .98 |
| Polk Oil Co. | 183,884 | .54 | 167,218 | .56 | 151,134 | .55 | 212,768 | .60 | 266,528 | .74 | 375,154 | .93 |
| Gafill Oil Co. | 328,180 | .97 | 330,683 | 1.24 | 267,694 | .97 | 436,981 | 1.23 | 468,883 | 1.30 | 350,925 | .87 |
| Conoco Oil Co.[3] | 269,740 | .80 | 223,340 | .75 | 281,482 | 1.02 | 349,599 | .98 | 306,015 | .85 | 348,743 | .87 |
| National Refining Co. | 264,741 | .78 | 255,020 | .86 | 245,040 | .89 | 240,822 | .68 | 283,187 | .79 | 335,719 | .84 |
| Cities Service Oil Co. | 246,885 | .73 | 168,963 | .57 | 113,872 | .41 | 117,742 | .33 | 267,340 | .74 | 302,541 | .75 |
| Hoosier Petroleum Co. | 113,110 | .33 | 145,931 | .49 | 143,915 | .52 | 148,475 | .42 | 161,227 | .45 | 307,922 | .77 |
| Mid-Western Pet. Co. | 103,557 | .31 | 106,587 | .36 | 147,091 | .53 | 218,363 | .61 | 230,433 | .64 | 266,808 | .66 |
| Producers Oil, Inc. | 178,050 | .53 | 174,710 | .59 | 189,988 | .69 | 244,595 | .69 | 277,524 | .77 | 243,402 | .61 |
| Total | | 62.84 | | 71.92 | | 69.90 | | 75.37 | | 82.00 | | 80.46 |

[1] Includes Shell American Petroleum Co. [3] Includes Continental Oil Co., Louisville.
[2] Includes affiliated companies, White Star Eastern Oil Co., White Star Motor Oil Co., White Star Oil Co., White Star Southern Oil Co.

The relation of the independent jobber, selling gasoline under his own brand name, shows up in the report also. Among the 21 largest distributors are seven independents marketing their own brands.

The Supreme Oil Co. at Indianapolis, heads the list of independent jobbers, and ranks fifth among the 21 distributors. In arriving at Supreme's total gallonage the business of four affiliated companies was included. These are the White Star Eastern Oil Co., White Star Southern Oil Co., and White Star Motor Oil Co.

This group in December reported 587,000 gallons, or 1.73 per cent of the total. The biggest month was February with 649,000 gallons, 2.35 per cent of the total. In May the companies reported 845,000 gallons or 2.11 per cent.

Eighth in the list is the Indiana Farm Bureau purchasing department, buying gasoline for the member co-operative oil companies. Business increased fourfold for the period of the report—from 158,000 gallons, or .47 per cent, in December to 652,000 gallons or 1.63 per cent in May.

Other independent jobbers coming in the classification are Polk Oil Co., Warsaw; Gafill Oil Co., South Bend; Hoosier Petroleum Co., Indianapolis; Mid-Western Petroleum Co., Indianapolis; and Producers Oil, Inc., Indianapolis.

The Vacuum Oil Co. has acquired business of about 250,000 gallons a month through purchase of an interest in the Great Western Oil Co., Indianapolis. For the period of the report January was Great Western's lowest month, based on gallons reported, with 141,094 gallons. May was the biggest month with 239,917 gallons.

Another large company that closely approximates 250,000 gallons is the Deep Rock Oil Corp., Chicago. This company (formerly Shaffer Oil Refining Co.) reported 232,464 gallons for May. The lowest month was April with 160,222 gallons.

The Continental Oil Co.'s business is reported as the Conoco Oil Co., Ponca City, and includes business done by the Continental Oil Co., Louisville, Ky. The Continental Oil Co., Louisville, was incorporated and was doing business in Indiana and Kentucky, selling Marland Oil Co. gasoline under its own brand. When Continental bought Marland the Louisville Continental changed its brand to Conoco. To do business in Indiana in its own right the Ponca City Continental operates as the Conoco Oil Co. so as not to conflict in name.

Among the 21 companies listed are two that operate at cut-prices—the Hoosier Petroleum Co., and the Producers Oil., Inc., both of Indianapolis. The Hoosier Petroleum operates three stations, and is controlled by the same organization putting in the self-serve service stations. This company's business ran from .33 to .52 per cent of the state's total.

The Peoples Nugas, Inc., Richmond, operating a self-serve station in Cambridge City reported 13,205 gallons for March. On April, the first full month, the station reported 50,945 gallons, and in May, 36,995 gallons.

Producers Oil Inc., is operated by a company out of Dayton, O. Its report showed from .53 to .77 per cent of the state's total business.

Two cut-price bulk service stations that have been operated for several years are the Low Price Filling Stations, controlled out of Piqua, O., and part of the chain of cut-price bulk stations in central western Ohio. At Munice the Low Price Station's lowest month was January with 32,959 gallons; the high was April with 93,773 gallons. At Richmond the Low Price Station report showed 31,690 gallons for January and 62,424 gallons in April. Both stations dropped off in May over April.

The accompanying table lists the 21 largest distributors for the period covered by the Association's report of 304 dealers reporting.

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## Hadlick Seeks Market Division Standards

NEW YORK, Aug. 9.—A standardization committee for the marketing division of the American Petroleum Institute is the hope of Paul E. Hadlick, secretary of the division. The producing and refining divisions have standardization committees.

A marketing division standardization committee would work to obtain uniform operating practice rather than trade practices which are covered in the code of ethics, Mr. Hadlick has pointed out. For example, the committee would adopt uniform methods of ascertaining the volume of lubricating oil in barrels by providing weight conversion tables for different gravities of oils at different temperatures.

It also might provide a method for the taking of temperatures in tank cars, a subject that was tabled by the transportation committee of the A. P. I. at its annual meeting last December. There are many other operations that are the cause of controversies between buyers and sellers because there is no standard under which operations may be performed.

In the equipment line there may be standardization of bungs, threads on barrel pumps, couplings, hose, and scores of other items which would save marketers a lot of grief at times.

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CLEVELAND, Aug. 9.—The Polytechnic Institute of Brooklyn, New York, has announced a special course in Diesel Engines, to be offered for the seventh consecutive year at that school, beginning Sept. 30th. It is an evening course, lectures starting at 7:30 p. m.

According to the announcement the great activity in recent years in the development of Diesels for many new uses has made this course of prime importance not only to steam and automotive engineers but to all allied trades whose business is the building, repair and upkeep of prime movers. Recent work in building Diesels for locomotives, automobiles and airplanes will be studied. The course is open to the general public, irrespective of the previous education of the applicant, and is of a practical nature.

# Davis to Take a Hand in Tank Racket in New York City

NEW YORK

REOPENING of the New York City truck tank racket is promised by Augustine Davis, Jr., president of the Davis Welding & Mfg. Co. of Cincinnati, who is preparing a complaint to file with one of two graft investigations now under way at the direction of Mayor James J. Walker.

Mr. Davis who has been here consulting his New York attorney, Louis P. Eisner, said the entire record of obstruction in getting approval for his truck tank from the New York fire department would be laid before the committee which is delving into the activities of public departments or before Commissioner of Accounts Higgins who also is investigating asserted graft in the Board of Standards and Appeals.

It has also become known that a plan has been considered by New York officials to draft new specifications for fuel oil truck tanks that would mean the scrapping of every fuel oil truck now in use in this city. The plan, it is said, has been pigeonholed temporarily but might be revived after the present graft scandals in public offices have died down.

Mr. Davis has been fighting for more than five years to get approval for a truck tank for hauling gasoline in New York city. His story of obstructions unreasonable delays in getting tests, and demands for reconstruction of tank parts after blueprints had been approved by the fire department, was laid before a senatorial investigating committee two years ago. This record is being brought to date to include the details of tactics of fire department officials since 1928.

A curious twist to the truck tank racket was given last week by the appointment of E. J. Kenny as deputy fire commissioner. Kenny is a broker, reputed millionaire, and, of course, a Tammany politician. He is a brother of William F. Kenny, financial backer of Alfred E. Smith in the 1928 presidential campaign.

The Kennys were the principal owners of the company which for four years held a monopoly on the New York gasoline truck tank business. They were the agents for the only tank that could get approval for use in New York city.

E. J. Kenny was appointed to a post made vacant by Charles W. Jannicky, who was indicted on a charge of conspiring to obstruct justice in connection with the issuance of a permit for the building of a service station in violation of the Brooklyn zoning ordinance.

The appointment of E. J. Kenny was by Mayor Walker. Four years ago Walker sought to have the tank specifications so changed that other tank manufacturers might compete in the New York market. This effort was frustrated, it is said, largely through the weight of William F. Kenny's influence in Tammany Hall. The Kenny monopoly continued until last year when a second tank was granted approval after the manufacturer of the second tank hired a Tammany congressman as his attorney. This attorney is a brother of the law partner of Governor Franklin D. Roosevelt of New York.

The cream of the New York truck tank market has been skimmed. When it was decided to permit deliveries of gasoline in bulk in New York it was estimated the requirements would be 400 trucks. This number has been exceeded. Future sales will be confined to the normal expansion of the market and to replacements.

More than 300 tanks were sold by the Kenny monopoly. The second manufacture has sold about 75. Since the entrance of the second tank in the market in 1929 the price charged by the Kennys has been greatly reduced.

# Roaper Heads Safety Work at Houston

R. B. Roaper

HOUSTON — R. B. Roaper, chief safety inspector of the Humble Oil & Refining Co., Houston, was elected president of the Gulf Coast chapter of the Petroleum Safety Council at its organization meeting, July 30.

J. L. Reisinger of Magnolia Petroleum Co., Beaumont, was elected vice president, and P. E. Keegan of the Shell Petroleum Corp., Houston, secretary-treasurer.

An organization committee consists of H. S. Stapleton, Vacuum Oil Co., Lake Charles, La.; J. L. Matteson, The Texas Co., Port Arthur; Charles Coleman, Gulf Refining Co., Port Arthur.

On the program committee are C. L. Housh, Sinclair Refining Co., Houston; J. S. Welborn, Freeport Sulphur Co., Freeport, Texas; and Charles O. Crouch of The Texas Pipe Line Co., Houston.

Don J. Wallace, safety director of the Mid-Continent Oil & Gas Association, Tulsa, was active in the organization meeting.

# Small Dealers Gain by New Q. D. A. In S. O. Indiana Territory

Staff Special

CHICAGO, Aug. 11

"JUST meeting competition" is the way oil company officials answered the request for information regarding the latest change in the Quantity Discount Agreement in the Standard of Indiana territory. According to some reports, the wide spread between the tank car and tank wagon gasoline prices has led to considerable shading of the posted Q.D.A. provisions. Another reason given for the change was that the excessive stocks of gasoline carried by the oil companies has led to fiercer competition for gallonage and that nowadays hardly any account is too small to be desired.

The new Q.D.A., answered by the Standard Oil Co. of Indiana as effective August 5 affects only the smaller retail gasoline dealers buying from tank wagon, those buying under 6000 gallons a month. It contains only two brackets, as follows: 3 cents discount off service station price to accounts buying 500 gallons or more a month; and 4.5 cents discount off service station price to accounts buying 75,000 gallons or more monthly.

Under the old Q.D.A., discounts off the service station price were: 2 cents for 500 gallons or more monthly; 2.5 cents for 2000 gallons or more; 3 cents for 6000 gallons or more; and 4.5 cents for 75,000 gallons or more.

The new Q.D.A. is effective over the entire Standard of Indiana territory except in Chicago and Detroit where no changes were made. Dealers at these points receive 4 to 5 cents per gallon discount off the service station price, depending upon their gallonage.

Three different methods of giving the dealers their rebates were reported. Some companies will give 1 cent at the time of delivery and 2 cents at the end of the month. Others will give 2 cents at the time of delivery and 1 cent at the end of the month. Still others reported they would give the entire 3 cent discount at the time of delivery, thus saving themselves considerable bookkeeping.

There seems to be a disposition on the part of some competitors of the Standard to try to force a tank wagon cut generally to replace the new discount system. No action in this direction has been taken as yet but comment has been made that such a course would be beneficial in improving marketing conditions.

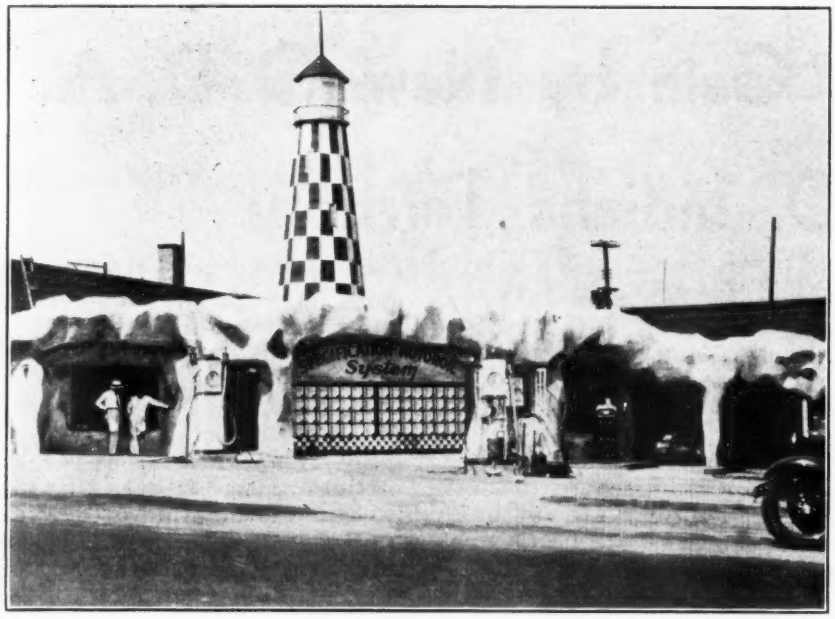
# Canvas Canopy Saves $2000 in Station Cost

PONCA CITY.—Substitution of heavy canvas canopy to protect at a drive-in service station for the usual brick and tile canopy effects a saving of more than $2,000, according to engineers of the Continental Oil Co.

In the picture is illustrated a new station of this company in Fort Worth. The design has been adopted as standard by the company. In the same Colonial style are the smaller stations with no greasing service.

The station here illustrated has enclosed lifts for oiling and greasing. Thus, the principal need for a canopy is to provide shade.

Canopy supports are steel pipe screwed into collars set in concrete, making it an easy job to take down the awning.



The Specification Motoroil System has come to Tulsa. The picture above shows the first station, at Eleventh St. and Detroit Ave. Shares are sold to motorists for $2 each. Each shareholder obtains a discount on all service.

# Another Customer Shareholding Station Opens in Tulsa

Staff Special
TULSA

THE Specification Motor Oil System, originating in Memphis two or three years ago, has entered Tulsa with a complete service station. The station is the second of its kind in the state. The first one was opened three or four months ago at Oklahoma City.

The company sells stock, and then allows the customer a discount on gasoline, motor oil, greasing and washing jobs, and on tires and accessories. The discount on gasoline is 2 cents a gallon, and on motor oils from 13 to 18 cents a gallon.

A share of stock costs $2. A card is issued along with the share of stock. The stockholder presents the card when obtaining service. All business, it was said, was done on a cash basis. Customers who are not shareholders pay regular posted prices for service.

The "specification oil" idea originates in the method of dispensing the motor oils. A stock of motor oils recommended for virtually every make of automobile is kept in the stock room, and from these stored drums the smaller containers are filled, and then in turn the oil is drawn from the container over which appears the name of the car being serviced. The oils, according to the manager, are blended to specifications recommended by the engineers manufacturing the automobile.

The oils are blended by a Gulf coast refiner. The gasoline is supplied by an Arkansas refiner.

The stock selling idea apparently is to obtain potential customers. Only one share of stock is issued to a person although duplicate cards are issued when more than one person drives the same automobile.

It was estimated that about 10,000 shares would be sold in Tulsa. This would be a gross of $20,000. The net is considerably under that figure, after the specialty salesman are paid their commissions. The investment in the station undoubtedly is three or four times the net sum obtained from the sale of shares.

There are two 8000-gallon storage tanks underground, but the gasoline is delivered via truck, from the tank car to the storage tanks.

The new station opened about a week after another station which had sold shares of stock in order to obtain customers had closed its doors for want of patronage.

# New Research Laboratory Opens at Ann Arbor

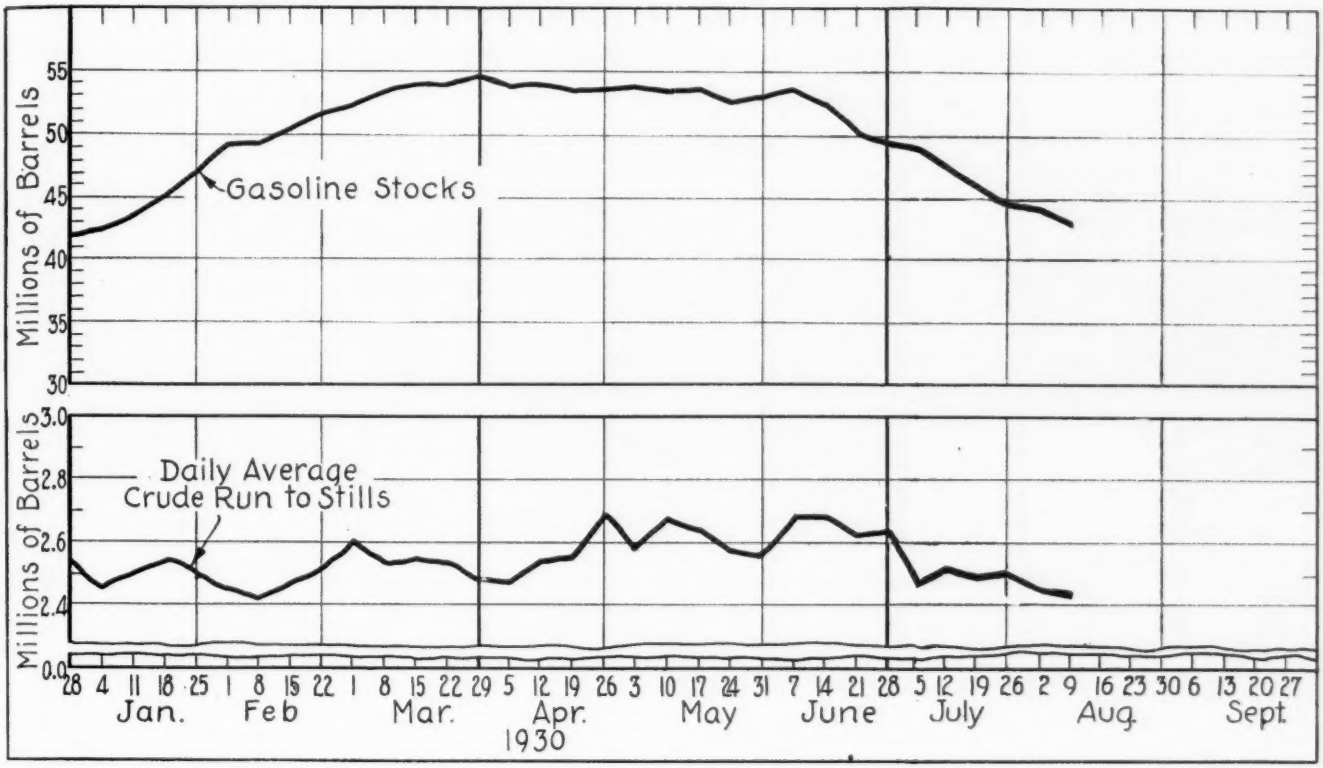
CLEVELAND, Aug. 8. — Establishment of a commercial laboratory for general work, as well as physical, chemical and engineering research and development work, has been announced by Drs. E. H. Leslie and H. B. Coats at Ann Arbor, Mich.

This laboratory will be devoted to investigational studies on distillation, chemical treatment, dewaxing and the various processing operations of the petroleum refining and natural gasoline industries; also to general research on all allied types of industrial engineering and chemistry.

Dr. Leslie states that for years he has been aware of the need for a laboratory equipped especially for the handling of special problems, provided with not only the ordinary types of apparatus, but with several and unusual types of equipment, and manned by personnel competent by training and experience to deal with problems of research and investigational nature.

He observes that the larger refining companies have their competent staffs of highly-paid research men, the smaller organizations cannot afford to employ full time men of the training and experience necessary to make their services of the desired value to the company. To such organizations a properly equipped and manned laboratory to which they can take their problems for solution at a cost greatly less than that for a permanent staff should be able to render a service which these firms are not now able to obtain.

## U. S. Crude Runs and Gasoline Stocks as Reported Weekly by A. P. I.




# U. S. Gasoline Stocks Reduced 1,371,000 Barrels

By Telegraph
NEW YORK, August 12

GASOLINE stocks were reduced 1,371,000 barrels in the week ended August 9 according to reports gathered by the American Petroleum Institute from refiners operating 95.7 per cent of the U. S. capacity.

An improvement in fuel oil demand due to greater industrial activity caused a reduction in fuel oil stocks also. Total stocks of fuel and gas oil August 9 were 139,242,000 barrels, a reduction of 400,000 barrels in the first week of the month.

East coast refiners led all groups in the liquidation of gasoline stocks during the week. Reserves were cut down 693,000 barrels in the week to 6,549,000 barrels with all plants reporting.

California refiners made the poorest showing in gasoline business. In that state gasoline stocks increased 324,000 barrels in spite of the fact that crude charges to stills were reduced 30,900 barrels daily average to 538,100 barrels or 60.4 per cent of capacity.

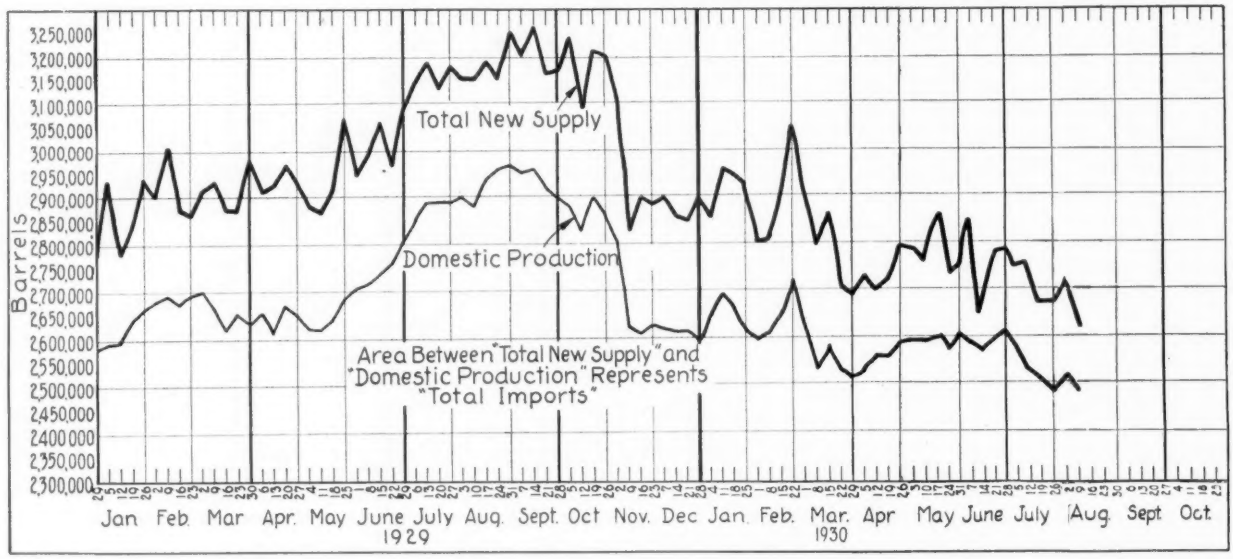
Indiana-Illinois refiners reduced gasoline stocks 292,000 barrels, Louisiana - Arkansas 240,000 barrels and Oklahoma-Kansas 186,000 barrels. Texas refiners cut their stocks 142,000 barrels, all at Gulf Coast plants.

Crude charges to stills of all districts were reduced 19,100 barrels to 69.1 per cent of capacity.

## Current Refinery Operations

| Districts | Per Cent Capacity Reporting | Daily Average Crude to Stills (Barrels) Week Ended | | Per Cent of Reporting Capacity Operated Week Ended | | Stocks (Thousands of Barrels) | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Aug. 9 | Aug. 2 | Aug. 9 | Aug. 2 | Gasoline Aug. 9 | Gasoline Aug. 2 | Gas & Fuel Oil Aug. 9 | Gas & Fuel Oil Aug. 2 |
| East Coast | 100.0 | 483,400 | 488,100 | 79.4 | 80.2 | 6,549 | 7,242 | 10,147 | 10,084 |
| Appalachian | 91.8 | 83,600 | 81,000 | 71.1 | 68.9 | 1,451 | 1,494 | 1,046 | 1,010 |
| Ind., Ill., Ky. | 99.6 | 296,200 | 285,400 | 77.7 | 74.9 | 6,777 | 7,069 | 4,396 | 4,387 |
| Okla., Kans., Mo. | 89.9 | 270,400 | 261,600 | 65.1 | 62.9 | 3,485 | 3,671 | 4,786 | 4,730 |
| Texas | 90.4 | 550,000 | 561,600 | 77.2 | 78.8 | 6,595 | 6,737 | 10,192 | 10,141 |
| La., Ark. | 96.8 | 161,000 | 157,900 | 61.5 | 60.3 | 1,501 | 1,741 | 1,779 | 1,938 |
| Rocky Mountain | 93.6 | 54,900 | 52,100 | 39.4 | 37.4 | 2,301 | 2,400 | 1,218 | 1,204 |
| California | 99.3 | 538,100 | 569,000 | 60.4 | 63.8 | 14,070 | 13,746 | 105,678 | 106,147 |
| Total | 95.7 | 2,437,600 | 2,456,700 | 69.1 | 69.6 | 42,729 | 44,100 | 139,242 | 139,641 |
| Texas (Gulf Coast) | 100.0 | 433,700 | 418,000 | 82.4 | 79.4 | 5,338 | 5,484 | 7,114 | 7,049 |
| La. (Gulf Coast) | 100.0 | 117,000 | 112,400 | 79.3 | 76.2 | 1,171 | 1,382 | 983 | 1,098 |

# Review of Late Production News




*Daily Average Crude Oil Production and Imports Based on Current Reports of American Petroleum Institute*

DAILY average production of crude oil in the U. S. dropped 34,950 barrels in the week ended August 9. The cut came largely as a result of a decline of 53,100 barrels in Texas to 819,850 barrels per day. California output was up 9400 barrels and Oklahoma up 6100 barrels.

## California

NEW completions in the flush fields of Elwood and Playa del Rey boosted California's production to 614,100 barrels for week ended Aug. 9. This is an increase of 11,500 barrels over the previous estimate and is 18,100 barrels in excess of the 596,000 barrels desired.

Although abiding by proration allotments, the new Elwood wells are allowed to produce to nearly full capacity during a five-day test. As in the case of the tideland well 92-5 drilled by Pacific Western Oil Co. this cumulative production causes a sizeable excess. The 92-5 yielded a maximum of over 10,000 barrels during one day of the test and averaged 9200 barrels of clean oil for the five days.

Several mediocre completions at Playa del Rey raised total production from the area to an average of 12,500 barrels during the seven day period. This is an increase of 2500 barrels over production as of Aug. 2. No constructive plan has been suggested as a yardstick for curtailing production at del Rey.

**Current production in this country by pools is found on page 97.**

Semi-wildcat tests throughout the state gave promise of obtaining commercial production. Chanslor-Canfield Midway Oil Co.'s Hobson 2-A at Rincon, and the Belridge Oil Co.'s deep test of the North Belridge field were the center of much interest. Production tests on these two projects are expected within a week.

## Texas, New Mexico, Louisiana

SUN OIL CO.'S No. 1 McKinley, an 11,000 barrel well in 5-19S-38E, is the latest completion in the prorated Hobbs field of Lea county, New Mexico, where exploited production of 35,000 barrels daily compares with a potential exceeding 150,000 barrels.

In the West Texas division of the Permian salt basin producing province, southeast of the Hobbs district, Fuhrman Petroleum Co.'s No. 1 Ford, in Andrews county, is a 30,000,000 cubic foot gasser at 4062 feet. It is also southeast of small wells in the Deep Rock area near Shafter Lake.

Elsewhere in Texas and in the Louisiana-Arkansas region field developments were quiet throughout the week.

## Oklahoma, Kansas

HE Mid-Continent was occupied during the past week with obtaining new potentials. Many of the proration programs were up for change, but the results of the wide open tests do not indicate that many changes will be made in present schedules.

Drilling operations held little interest, for the week was generally quiet. The Oklahoma City pool was extended both to the north and west, though the south end looked worse than at any other time. More water showed at West Asher, while in the Tatums area of Carter county, the second and third good producers were being brought in. Konawa was extended one-quarter of a mile to the north.

# Railroads Studying Methods To Protect Oil Traffic

WASHINGTON

RAILROADS are studying methods of holding their petroleum traffic against the inroads of pipelines. Economists and statisticians for the railroads are in Washington investigating Interstate Commerce Commission data on oil transportation by pipeline and railroads.

Attention to the railroad's research work was drawn by release this week of the Interstate Commerce Commission's pipeline report for 1929 showing an increase of 10 per cent in the amount of oil handled, and increased operating income, net income, and dividends declared.

Oil transportation represents revenues of $379,959,000 annually to the railroads. Of this amount $107,772,000 comes from the eastern district, east of the Mississippi river and north of the Ohio and Potomac rivers. From the southern district $46,727,000 is obtained. Traffic west of the Mississippi river brings in $225,458,000. Crude, fuel oil, and residuals revenues amount to $80,035,000.

The Commission's figures for 1929 pipeline operations on crude and gasoline show that 1,156,000 barrels were transported against 1,053,000 for 1928. Other comparisons for 1929 against 1928 are operating income of $135,420,772 against $112,221,309; net income $142,216,242; against $117,206,029; dividends declared $125,314,087 against $80,896,724.

Operating expenses increased in 1929 only from $96,477,518 in 1928 to $102,101,243. Labor, the chief operating expense item, increased in dollars but not in numbers. The 25,270 employees in 1928 received $44,498,437. The 23,457 employees in 1929 received $46,251,004.

While operated railroad mileage was increasing slowly pipeline mileage increased from 81,675 miles in 1928 to 85,796 miles in 1929. Investment in pipelines for the two years increased from $659,092,738 to $741,101,196. Capital stock outstanding increased from $341,907,478 in 1928 to $385,143,081 in 1929.

The 1928 report covers 33 pipe lines. That for 1929 covers 37 lines New lines reported are the Atlantic Pipe Line Co., 28,153,000 barrels moved; Bradford Transic Co., 1,580,000 barrels; Continental Oil Co., 25,475,000 barrels; Texas-Empire (Oklahoma) and Texas-Empire (Illinois), 1,933,000 barrels each. The Maryland Pipe Line Co., with 15,288,000 barrels in 1928, disappeared from the 1929 report.

Railroads are reported as alarmed over the oil transportation situation although traffic men and counsel of the oil industry have been warning them for years. The Pennsylvania and Burlington roads are reported pessimistic.

The railroad research men this week were interested in gasoline pipeline transportation and asked for figures on the Tuscarora Pipe Line Co.'s business. This line carries gasoline for the Standard Oil Co. of New Jersey from the East coast to Pittsburgh. Regulations of the Commission will not require this company to report until near the end of the year.

# A. P. I. Offers Display Signs To Signers of the Code

NEW YORK

IT WILL not be long before the signers of the code of marketing practices will be able to tell the world in the colors of purity that they have pledged themselves to do business on an ethical basis.

The American Petroleum Institute is offering signers of the code a metal sign with the following legend in blue letters on a white background:

"This Company Has Accepted and is Observing the National Code of Practices for Marketing Refined Petroleum Products, Sponsored by American Petroleum Institute, Approved by Federal Trade Commission on July 25, 1929."

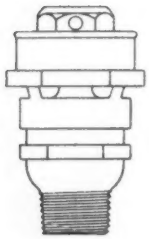
The signs are to be 9 x 12 inches and will be punched so they may be attached in a prominent place to service stations. Letters offering the signs to the 15,500 signers of the code are being mailed from the institute's headquarters in New York.

Order for the signs will be placed about Sept. 1 when W. R. Boyd, Jr., A.P.I. executive vice-president, and Paul E. Hadlick, secretary of the marketing division, get an idea as to how many will be required.

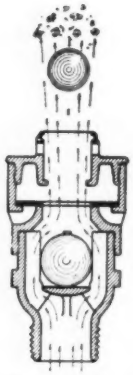
Price will depend on the number of signs required but it is estimated the price will be less than 10 cents each on orders of 100 or more. The institute will sell them for cost plus a small handling charges, it was said.

Coincident with the development of the plan to have the signs lithographed was the action of the Maine code committee indorsing a means of telling the public which companies are operating under the code. The signs also will be a constant reminder to station operators of the pledge they have taken to keep their business on a sound basis.

The idea for the signs was approved by the A.P.I. directors at their last meeting.

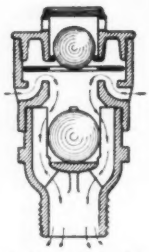


**Outside View**



**In Case of Fire**

*Fusible metal top melts —large escape prevents tank from bursting.*



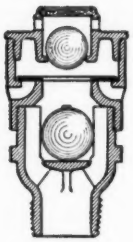
**Admitting Air**

*Air is admitted through side vents while contents are being withdrawn.*

*The new Wheaton Vent Valve for Truck Tanks*

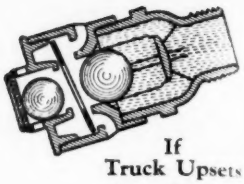
**Relieving Pressure**

*Excess pressure is immediately relieved — upper ball rises and releases air.*



**Normal**

*Showing valve in normal condition—both intake and escape vents closed.*



**If Truck Upsets**

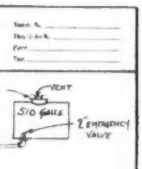
*Bottom ball closes vent and prevents loss of gasoline.*

# THIS Vent Valve—*made by* WHEATON —proven MOST EFFICIENT of all!

## *98.8% Efficiency!*

TESTS OF TRUCK TANK VENTS

550 GALLON TRUCK TANK COMPARTMENT EMPTIED THROUGH 6" PIPE 5'-0 LONG, EQUIPPED WITH 2" EMERGENCY VALVE AND WHEATON 2-24 FAUCET




| VENT | CONDITIONS AND REMARKS | TIME MIN. | GALLS/MIN | EFFICIENCY % |
|---|---|---|---|---|
| NONE | 6" FILL PLUG REMOVED | 8.96 | 56.9 | — |
| ¾ PIPE | ¾" NIPPLE USED FOR VENT | 8.98 | 56.8 | — |
| No. 1 | A TRIPLEX VENT ¾" PIPE THREADS | 16.66 | 30.6 | 53.8 |
| No 2 | A DUPLEX " " " " | 11.72 | 43.5 | 76.3 |
| No 3 | A " " " " " | 11.08 | 46.0 | 80.8 |
| No 4 | A TRIPLEX " " " " | 13.40 | 38.0 | 66.8 |
| No 5 | A " " " " " | 15.20 | 33.5 | 58.9 |
| No 6 | A " " 1" " " | 10.05 | 50.8 | 89.3 |
| No 7 | A " ¾ " " | 9.42 | 54.2 | 95.3 |
| WHEATON | WHEATON TRIPLEX | 9.08 | 56.2 | 98.8 |

HERE'S a Vent Valve—made by Wheaton—that permits faster unloading than any other vent on the market. Tests *prove* it. Read the report at the left, which tells how this vent surpassed all competitors—with an efficiency rating of 98.8%!

Look at the diagrams at the top of this page. See how this new Wheaton Vent Valve positively *prevents evaporation.* See how excess pressure is immediately relieved by a simple ball check, and observe how air is admitted as contents are withdrawn. Note the remarkable *safety* features—how loss of contents is prevented if tank overturns; how fusible top melts and prevents tank from bursting in case of fire.

Replace your old vent valves with the Wheaton. It will save you hours each day in unloading. It will safeguard your tanks and product. And it will give you *longer service.* Wheaton Vent Valves are made of *all bronze*—the same tough, long-lasting bronze found in the finest Wheaton faucets and valves—machined and finished with characteristic Wheaton care. Send for a sample today. Give it your own test. If not entirely satisfactory, return it for credit or refund.

**A. W. WHEATON BRASS WORKS, NEWARK, N. J.**

*Empire Brass Mfg. Co., Ltd., London, Ontario, Canadian Manufacturers and Distributors*

# Wheaton

FAUCETS · VALVES · JOINTS · COUPLINGS · FILLERS · NOZZLES · FITTINGS

# Texas Curtailment Order Delayed, But Definitely Promised

By Paul Wagner

N. P. N. STAFF WRITER

HOUSTON, Aug. 9

CURTAILMENT of Texas oil production to a level below 750,000 barrels daily is to be attempted under forthcoming state orders and the reasonableness of the program will be left to such court tests as may be made in the future.

Chairman Pat M. Neff of the railroad commission, which administers the state's conservation and utilities laws, indicated at an Austin hearing Aug. 8 that the order will be issued "within the next few days."

The order will be given a remote effective date, so that between the time of its issuance and the actual curtailment requests for changes can be considered.

Protests now before the commission, on which future hearings will be required, have been lodged on behalf of the Gulf Coast and Laredo districts of South Texas; the Crane-Upton area of West Texas and the Big Lake 8500-foot development of Reagan county, West Texas.

The Big Lake field's 20,000 barrels daily production includes approximately 9000 barrels from the 8500 foot level, where 61 gravity oil is accompanied by high pressure gas on University of Texas leaseholds controlled by Continental Oil Co., and the Big Lake Oil Co. It is contended reduction in exploitation would damage the properties.

Laredo district yields of 13,000 barrels daily come from a dozen small fields in Webb, Zapata and Jim Hogg counties, only two of which (the Escobas and Killam pools) yield flowing production.

The Crane-Upton problem, involving two counties with total production of 39,000 barrels daily, has to do with use of air for lifting purposes in the University-McElroy area.

Independent operators in the Gulf Coast, including Harrison Oil Co., J. S. Abercrombie, Inc., Yount-Lee Oil Co., Hogg Bros., and the Gladys City Oil Co., take the position that their territory is already restricted to demand and argues that the commission is without power to deal with economic problems. Daily production averages approximately 180,000 barrels in this general territory, including many old fields.

The new common purchaser, or pipeline, law under which statewide prorating is contemplated provides only for equitable handling of production from fields and districts; whereas curtailment to avoid physical waste, which is the only legal method of restricting production in Texas, comes under an earlier statute.

Investigation of the Big Lake situation by David Donoghue as technical advisor to the curtailment committee was agreed to at an Austin conference Aug. 9 of the University of Texas representatives, Big Lake field operators and the committee itself. After Mr. Donoghue's investigation he will report to operators whether curtailment there is possible. The situation in the Big Lake field may be reopened before the railroad commission if necessary.

Chairman R. L. Batts of the university board of regents said at the conference that his group did not object to curtailment provided the University's interests were protected. He said he hoped the University was a permanent institution and it mattered little whether the oil was recovered now or later.

Speaking for the Big Lake Oil Co., one of the two operators in the field, C. L. Black referred to an advantageous contract for production throughout the life of the field and opposed reduction except for prevention of actual physical waste.

Local self-government is contemplated in the various Texas regions getting their production within proration limits. Individual fields or regions will get their hearings before the state commission between the time the general prorating order is issued and its effective date. Then if still dissatisfied with the commission's ruling operators may either take their objections to court or find themselves in contempt of the conservation agency's orders.

Under a rearrangement reached at the Austin meeting Aug. 8, P. C. Murphy of the Humphreys Corp. at Houston is made chairman of the Gulf Coastal committee in general charge of attempting to correlate curtailment in south Texas. Robert R. Penn of the Penn Oil Co., Dallas, continues as general chairman of the curtailment committee dealing situations arising elsewhere in the state.

The hearing developed additional protests by Elwood Fouts of Houston, representing the Harrison Oil Co., and J. S. Abercrombie, Inc., who argued proration is illegal and violative of constitutional rights. His arguments were similar in tenor to those submitted for his clients in recently obtaining temporary injunction against prorating in the Darst Creek field of southwest Texas.

# Anticipate Growing Output From Playa del Rey

LOS ANGELES, Aug. 9.

CONTINUATION of curtailment of operations in California fields for possibly another year, or until conditions warrant a change, was urged at a meeting of the Operator's General Committee on statewide oil curtailment Aug. 5.

This session of the committee was called primarily to approve the Aug. 1 to 15 proration schedules offered by the Fact Finding Committee and also to clarify certain terms in the proration agreement of May 15.

Considerable discussion was given to ways and means of bringing the state's daily output to within the desired quota of 596,000 barrels.

Anticipating a greater yield from the flush field of Playa del Rey, conservation experts urged operators in other areas to adhere to proration allotments while a suitable yardstick is being devised to control crude production from del Rey.

Paul N. Boggs, chairman of the general committee, interpreted the committee's resolution of May 15, upon which the present California system of curtailment is based.

He stated that the principle of statewide curtailment was predicated on complete co-operation among the operators throughout the state. The May 15 resolution was intended to give complete equity to all concerned by allowing each operating company a percentage of the predetermined allowable of 596,000 barrels established by the Fact Finding Committee on that date.

This pegged allowable of 596,000 was then prorated to each field in proportion to the potential of each field as of a particular date. The potentials and allowables of each company in each field were then aggregated to determine the corresponding figures for each field.

The principle, as laid down on May 15, would therefore permit increasing the allowable of any one field only in the event of a shrinkage in the potential of other fields in the state. This shrinkage in the potential of any field would be credited to those fields which were able to increase their potential. In the same way an individual company could not increase its allowable in a particular field until the allowable of that field had been increased by the necessary shrinkage in another field.

The only advantage, therefore, to a company in drilling additional wells, (thereby increasing its potential production) would be that the company would have a standby potential, which could be utilized in the event of decline in potential production of its own in another field.

By adhering more closely to the fixed allowables the chairman believes the present overproduction can be prevented. For the week ended Aug. 9 California production was estimated at 614,100 barrels, over 11,000 barrels in excess of the desired figure of 596,000 barrels daily.

# Open-Type Water Heaters Best for Oil Field Use

CLEVELAND, Aug. 8.—The economies effected by the use of boiler-feed water heaters in well-drilling operations have been studied by engineers of the Petroleum Division of the U. S. Bureau of Mines, and the results obtained are reported in Report of Investigations No. 3003, "The Use of Boiler Feed-Water Heater With Steam Powered Rotary Drilling Equipment," by C. E. Reistle, Jr., petroleum chemist.

The paper outlines the different types of water heaters usable in this kind of work, and gives in detail the results of field tests with both open and closed heaters in use in the Oklahoma City field drilling operations. Designs are given for a heater of each type used, also valve and piping systems suitable for field installations.

Costs of the different installations are estimated, costs of repairs, and the relative savings effected are estimated in detail, itemized; these estimates are based on manufacturer's data, and the experiences of different operators in field work, as well as on experimental data collected by the writer.

As a result of the investigation, the author concludes that the use of feed-water heaters will effect a saving of 10 to 15 per cent in fuel requirements, and of 20 to 25 per cent in water consumption; increases the life of boilers from 10 to 16 per cent, while lengthening the life of boilers, reducing lost time for repairs, cost of repairs, and minimizing the hazard of boiler failures.

Heaters are practicable where steam demands are large, where water supply is limited, or where fuel is expensive. In drilling 100 wells as under Oklahoma City conditions, heaters will save $100,000 in fuel and water and an additional $50,000 in maintenance and repairs. The open type heater is more feasible and serviceable, on account of its simplicity, low cost, ease of scale removal, high feed water temperature and high condenser water recovery.

Copies of the paper may be obtained free from the Publications section of the Bureau of Mines, Washington, D. C.

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NEW YORK, Aug. 11.—The third edition of "Petroleum Facts and Figures" published by the American Petroleum Institute will be published about Sept. 1. Orders should be filed with the institute by Aug. 15. The price will be $2 per copy.

ADVERTISING PAGES REMOVED

**AS the magnum opus this** week we offer an account of something quite interesting that is going to happen at the International Petroleum Exposition in October. It seems that the bio-chemists here and there have found the way to stimulate living cells, producing something akin to the amoeba, that unicellular creature that is a mathematical paradox in that it multiplies by dividing.

The following description of the display that is to be made at the Exposition is from the typewriter of Bob Conine, head of the amoeba department of the world's greatest oil show. Here it is:

"Far above its littoral of hard practicality, gasoline has soared on the wings of pure science, in the best sense of Emanuel Kant, so that this light fraction of crude oil now whispers into the ears of physio-chemistry savants the innermost secrets of the phenomenon called 'life.' The scientific committee of the International Petroleum Exposition, headed by W. A. Schlueter, will present the experiment in plasmogenesis which bio-chemists in France, Italy, Mexico and the United States believe gives an explanation of life in terms of physics and chemistry.

"Professor Alfonso L. Herrera, director of biological studies in Mexico, has performed the following experiment which will be presented at the Oil Show:

"Two solutions are made. The first is composed of 100 cubic centimeters of the finest grade of gasoline, and 50 cubic centimeters of fresh olive oil. The second solution contains 10 grams of caustic soda dissolved in 200 grams of hot distilled water to which has been added the basic stain rhodamine in the amount of one gram.

"Drops of the second solution are introduced into the first solution through a pipette.

"The drops from the pipette immediately take on the appearance of greatly magnified amoeba, one-celled animals, and sending out pseudopoda-like projections the artificial amoeba, or colpoids, wander about actively in the solution, attacking one another, palpitating, conjugating, dividing, for about eight hours. Their appearance indicates violent osmotic currents through the saponaceous film which has formed around each.

"The scientists do not say that the artificial amoeba are alive, but they assert that these artefact manifest all of the properties of the one-celled living organisms."

* * *

**The Cities Service organization** has just completed its second Doherty News beauty contest. Florenz Ziegfeld, theatrical man, awarded grand prize to Miss Imogene Hedrick, of the Wichita Gas Co.

* * *

**The gentleman who sits in** the adjoining room has an original theory on the execution of Gangster Zuta, of Chicago, whose involuntary demise occurred a few days ago. He thinks it may not have been the work of fellow gangsters at all. Zuta, dispatches said, was putting nickels into a player piano at the time.

* * *

**Another Midwest Refining** Co. man has moved from Casper to fields of greater endeavor. Fred E. Wood, who has headed the petroleum engineering work for the organization for about four years, has gone to Chicago to handle petroleum engineering for the Standard Oil Co. of Indiana's recently created producing department, which functions under Vice-President Al Peake.

* * *

**Tulsa oil companies are** pleased at the news that this city is at last to be on a through air mail route, getting away from that shuttle-plane system that has been used for two years. A new line announced by the postal department is from New York through Pittsburgh, St. Louis, Tulsa and on to Los Angeles. It should afford a considerable saving in time over the present method under which air mail is flown to Ponca City and sent on north through Wichita and Kansas City, or south through Oklahoma City and Dallas.

* * *

**In striking contrast to the** first inspection trip of properties in the western, southwestern and northern districts made by the Continental Oil Co., one was started last week by airplane. The one a year ago was made by 'bus. D. J. Moran, president; E. J. Nicklos, vice-president in charge of production, made the full trip while E. S. Karstedt, vice-president in charge of marketing and Harry Kennedy, sales manager, will each make part of the journey.

Stops were to be made at Wichita Falls, Fort Worth, Houston and Brownsville, Tex.; Monterey, Mexico; Laredo, San Antonio and Santa Rita, Tex.; Jal, Albuquerque and Shiprock, N. M.; Kingman, Ariz.; Los Angeles, Calif.; Las Vegas, Nev.; Salt Lake City,

Utah; Butte and Great Falls, Mont.; Calgary and Edmonton, Canada; Casper, Wyo.; Denver, Colo.; Lincoln, Neb.; Chicago, Ill.; Columbus, O.; Baltimore, Md.; Richmond, Va.; Newark, N. J. and thence home.

The distance to be covered is more than 8800 miles and the party expects to be back in Ponca City on Aug. 27. A Ford tri-motor ship, newest of the Continental fleet, is being used.

* * *

**A press dispatch from Norfolk, Va.,** would seem to involve a prominent oil company in the same way the Kansas City Gas Co. recently was—in abetting the violators of the prohibition laws. This company operates a floating filling station in the harbor of Norfolk. Its largest sale was 2485 gallons of gasoline, to a rum runner. The Kansas City company was accused by the district attorney of having assisted a moonshiner by supplying him with fuel and here is a real opening for some enterprising "dick" to drag in an oil company.

* * *

**Died: In New York City, J.** H. Snowden, first vice-president of the well known producing firm Snowden & McSweeney.

* * *

**Born: In Ponca City, to Mr.** and Mrs. O. J. Bowles, a girl. Mr. Bowles is a chemist for the Empire Refining Co.

* * *

**Frank Matchett, of Tulsa, is** president of the newly organized First National Bank, in New Hobbs, N. M. Mr. Matchett has been an executive of the Exchange National Bank, of Tulsa. Harry H. Rogers, president of the latter institution, and John H. Markham, Jr., Tulsa capitalist, were organizers of the New Hobbs bank.

* * *

**Died: In Tulsa, William H.** Kiser, oil producer, 61 years old. His widow, two sons and one daughter survive him.

* * *

**Oklahoma City's First National Bank & Trust Co.** building, work on which will be started this month, will be 32 stories high. It will be the tallest in the state. At present Tulsa has the tallest, the Exchange National Bank building being 28 stories.

* * *

**Several changes in the Continental Oil Co.** organization have been announced. E. H. Skinner, formerly chief clerk of the pipe line department, has been made manager of that division. He succeeds Harry Moreland, who is now vice-president and general manager of the Great Lakes Pipe Line Co., gasoline line which Continental and Barnsdall Corp. are jointly constructing.

* * *

R. L. Bosworth has been made assistant treasurer, succeeding P. C. Girard, resigned, and G. T. Bodman succeeds Mr. Bosworth as chief accountant. A. G. Wikoff took Mr. Bodman's place as refinery accountant. George Woods, of the Ponca City sales division, has been transferred to Chicago as division manager and J. G. Davis, who was assistant manager of the Wichita Falls sales division, has been moved to Ponca City to take Mr. Woods' Former position.

* * *

**W. L. Scott, sales manager** for American Refining Properties, Inc., Wichita Falls, has returned to his office after spending a few days in hospital.

* * *

**D. J. Moran, president of the** Continental Oil Co., has bought from E. W. Marland the handsome home occupied by the latter for several years, prior to the building of the large Marland home just northeast of Ponca City. Mr. Moran has lived in the place he purchased since he came to Ponca City late in 1928 to head the old Marland Company.

* * *

**John H. Dickson, vice-president** of the Gibson-Zahneiser interests, is undergoing medical treatment in Philadelphia. He left Tulsa early in June for a vacation in Europe, but became quite ill in Paris and rushed back.

* * *

**L. B. Holland, production** superintendent for Phillips Petroleum Co., has moved from Shawnee to Oklahoma City, where Phillips' chief work in the division is now concentrated.

* * *

**Married: In Tulsa, Miss** Betty Clark and Kenneth A. Ellison, geologist for the Wilcox Oil & Gas Co.

* * *

**Effective Aug. 1 sales offices** of the Sinclair Refining Co. in Oklahoma were moved from Tulsa to Oklahoma City. Those making the change were J. L. Harp, who is in charge; B. Nelson and F. D. Burke.

Says the Midwest Review: No more alarming combination could be imagined than a dominating personality driving a five-ton truck.

* * *

**Dedication ceremonies at the** administration building of the American Legion home for dependent children of former service men were held in Ponca City last week. This is the third unit in the group which is on a 120-acre site given to the Legion by E. W. Marland.

* * *

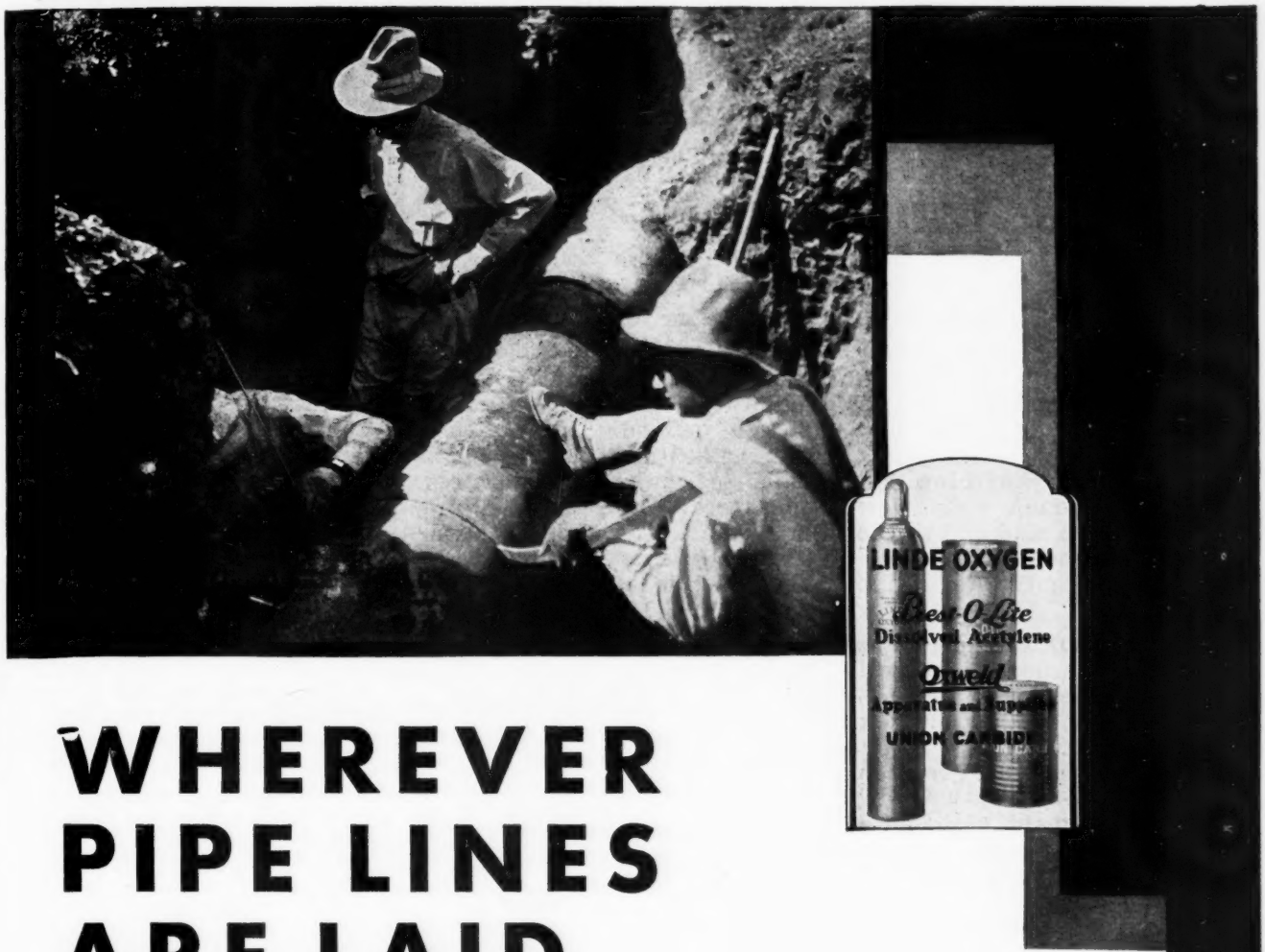
**Shell Petroleum Corp. has** moved its production offices from Wichita Falls to Dallas. District land and geological offices were left in Wichita Falls, with Paul Buchanan in charge. James Lawry, in charge of production, moved to Dallas and L. R. Berry, his assistant, went to Hobbs, N. M.

* * *

**Les Combest, who once** operated in the fields of Cumberland county, Kentucky and elsewhere in the Bluegrass state, figures in the news out of Wichita Falls. We regret that the item concerned a dry hole.

* * *

**J. B. Ogletree, formerly** of the Oklahoma City office of the Magnolia Petroleum Co., is now assistant to F. E. Mallonee, Kansas division superintendent for Magnolia.




# WHEREVER PIPE LINES ARE LAID

LINDE Process Service is an important factor in assuring economical installation and satisfactory performance. It brings to the firing line the results of intensive laboratory research and years of experience pioneering the field. It helps organize the work under standards dictated by the best engineering and field practice.

This service has demonstrated its ability to lower costs, speed up the work, and enable the production of a permanently tight line with tough, ductile welds as strong as the pipe—fully 100 per cent. efficient.

Linde Process Service is available to users of Linde Oxygen.

THE LINDE AIR PRODUCTS COMPANY, THE PREST-O-LITE COMPANY, INC., OXWELD ACETYLENE COMPANY, UNION CARBIDE SALES COMPANY,

Units of UNION CARBIDE AND CARBON CORPORATION

**General Offices . . . . . New York** UCC **Sales Offices . . . in the Principal Cities**

65 Linde plants . . . 48 Prest-O-Lite plants . . . 174 Oxygen Warehouse stocks . . . 156 Acetylene Warehouse stocks
42 Apparatus Warehouse stocks . . . 245 Union Carbide Warehouse stocks

# Oklahoma City and Konawa Extended As Tatums Gets Two New Ones

TULSA, Aug. 9

THE taking of potentials for the possible rearrangement of proration schedules occupied the Mid-Continent during the past week. Drilling operations were anything but spectacular though some few extensions were made. For the most part, however, the completions were largely of routine nature.

The Oklahoma City pool was extended to the north and west a few locations, while the south end was further proving its limitations. West Asher broke about even with two good completions, a water showing in a new one on the east and a failure on the north. In the Tatums area of Carter county, Okla., the second and third large producers came in during the week.

The wildcats of Kansas are still the most interesting operations of the state. The Eastborough pool continued to grow though the most recent completion was rather disappointing. Stafford, Rush and Reno counties all registered good oil shows in wildcats but tests had not been made at the last reports.

### Oklahoma City

Extending the southern half of the Oklahoma City pool two locations west the Shell Petroleum Corp., No. 1 Egermeir, NE NE SW, 23-11-3W, made a 13-hour run of 2043 barrels. The pay sand was logged from 6350 to 6628, which is but slightly lower than the wells on east.

The Indian Territory Illuminating Oil Co., No. 1 M. K. & T., SE SE SW, 35-12-3W, moved the city end of the pool one location north. It gauged 3264 barrels in 18 hours from a total depth of 6555. There were several other good wells brought in during the week in this prolific sand area and there is no indication as yet that the limit has been reached.

The south end of the Oklahoma City field now has its limits well defined. In the past week or so there have been a number of comparative failures and several water wells. Currently the I. T. I. O., Continental and Prairie all have dry holes in this area. The first two are in 6-10-2W, the No. 1 Reynolds, NE NE NW, and the No. 2 Sudik, NE NW NE. Both had only small shows, but bailed dry at total depths in excess of 6700 feet. The same was true of the Prairie well in the NW NW NW of 5-10-2W.

The Cromwell-Franklin Oil Co., is making a test of an upper sand found from 4348 to 4358. The well is located in the NE SW, 6-10-2W, near the above dry holes. It was only drilled to 4733, where it had a hole full of salt water, and is now plugging back to 4450. The results of the test are being awaited with interest.

### West Asher, Pottawatomie County, Okla.

In the West Asher pool of Pottawatomie county, Okla., water made its first appearance on the east side. The I. T. I. O., No. 3 Butler, SE SW NW, 23-6-3E, began cutting on its initial flow, making 1063 barrels in 15 hours with a show of water. On the north end, the Transcontinental Oil Co., No. 2 Miller, NE NE NE, 22-6-3E, became the fifth water well of the area. Its total depth was 3619 and is D&A.

Two more good producers were added to the growing list of the pool. The I. T. I. O., No. 4 Butler, NE SW NW, 23-6-3E, flowed 1475 barrels in 12 hours and the Prairie Oil & Gas Co., No. 4 Cryer, NE NW NW, of the same section, made 2150 barrels for an initial. The top of the sand in the former was at 3476 and in the latter at 3558, showing a considerable dip toward the north.

### Konawa Pool, Seminole County, Okla.

The Konawa pool of Seminole county, Okla., was extended one-quarter of a mile north by the Magnolia Petroleum Co., No. 1 Billington, NE SE NW, 29-6-6E. Producing from two sands, 2808 to 2828 and 2856 to 2860, the well swabbed 288 barrels initially.

A new potential for the pool was taken during the week and it is now estimated at 76,000 barrels. There are 96 wells producing and no change is expected in the present proration schedule.

### Tatums Area, Carter county, Okla.

Two good wells were added to what was formerly considered gas territory in the Tatums area of Carter county, Okla. These were the Wirt Franklin No. 1 Hooks, NW NW NE, and the Trevelyn Oil Co., No. 2 Mitchell, NW SW SE of 24-1S-3W. The former made 2000 barrels in 24 hours from a total depth of 2500 feet and the latter had an initial of 1775 barrels. The pays were from 2274 to 2296 and 2335 to 2435. There are a number of other wells drilling in the area and the above completions will result in the staking of several more.

### Kansas

The Eastborough pool on the outskirts of the city of Wichita had a rather disappointing Chat completion. It was the Vickers Petroleum Co., No. 2 Keys, NW NW NE, 30-27-2E. In the Chat from 2942 to 2978, the well swabbed but 271 barrels in 24 hours. It is to be thoroughly tested before deepening to the Wilcox pay found in the No. 1 on the same lease. The well is offset on the north and west by 1000 barrel Chat producers.

New potentials were taken on

the Voshell pool of McPherson county, and the 90 wells put out a total of 60,198 barrels. This is an increase of over 6000 barrels above the July potential, which is probably due to the complete installation of pumping equipment. The allowed production is but 16.75 per cent of the potential and the present proration programs is to be continued through August and September.

The gas area of Stephens county was extended eight miles north by the No. 1 Pershinger of A. J. Hardendorf, SE 22-31s-38W. The sand was from 2495 to 2520 and the well was completed for a total of 4,000,000 cubic feet.

### Texas Panhandle

The best well to be completed for some time in northwestern Gray county was the Dixon Creek Oil Co., No. 3 Harrah, SE SE NW, 150-Blk 3-I&G. The lime pay was from 3177 to 3215 and the well swabbed 500 barrels after a 160 quart shot.

In Moore county, the No. 1 Shary of the Shamrock Oil and Gas Co., NW NE NE, 187-Blk 3T-T&NO, had a hole full of water from 3530 to 3533. It is now plugging back to shoot the pay found from 3498 to 3504. From this pay the well had swabbed 120 barrels on test.

Seven miles due west of this well, the No. 1 Brumley of the same company, SE SE SE, 360-Blk 44-H&TC, is shut down awaiting tankage. It is estimated as being good for 200 barrels at a total depth of 3340.

The water situation in this part of the county is rather puzzling to the operators. Sea level does not seem to mean a thing for the brine may be found from 100 feet above to 400 feet below. It does not indicate, however, that the hope of a pool in this area is entirely blasted. There is still reason to believe that many good producers will yet be found.

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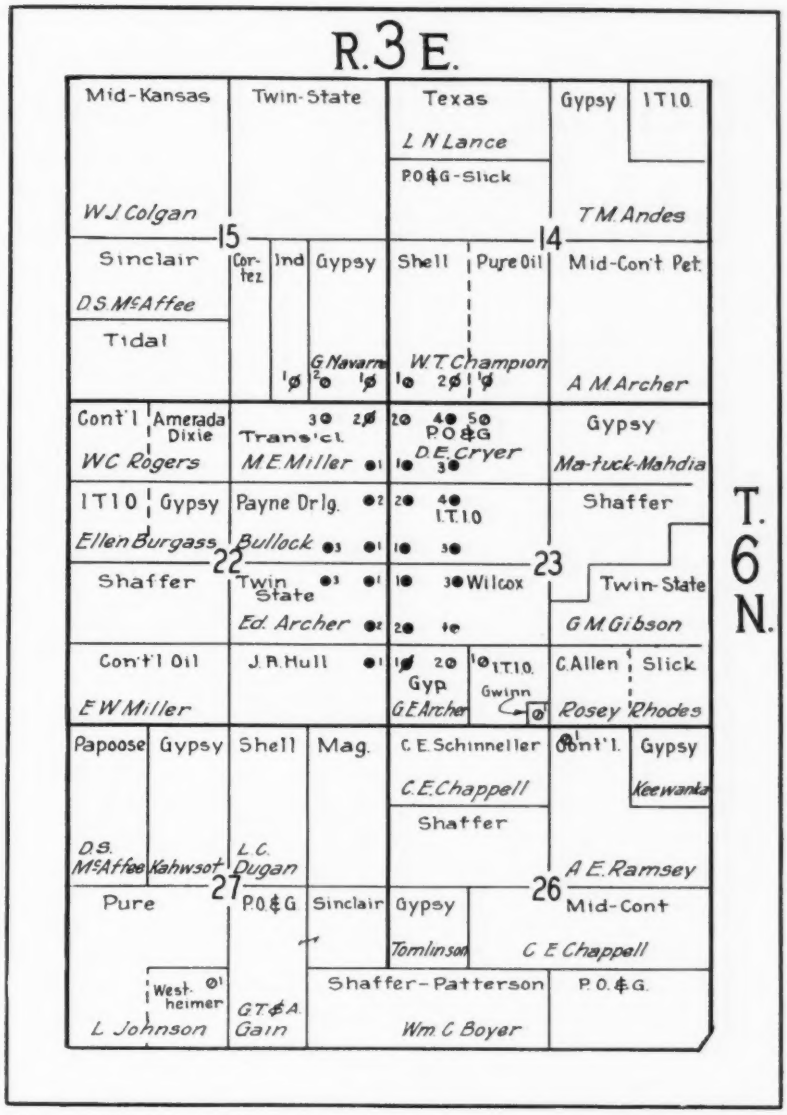
CLEVELAND, Aug. 7.—W. W. Patrick, director of the Foxboro Co., Foxboro, Mass., died recently of pneumonia. He had been with the company since 1899. In 1908 he became New York district sales manager, holding that post for 22 years.




**Map of the West Asher pool, Pottawatomie county, Okla., showing the development to date. Note the dry ones on the north end**

## Prairie Deliveries Drop in July

INDEPENDENCE, Kans., Aug. 9.—Deliveries of crude oil to customers by the Prairie Pipe Line Co. in July were 4,811,206 barrels. That was a daily average of 155,200 barrels. Deliveries were 36,506 barrels less daily than in June. The decrease was as forecast by W. S. Fitzpatrick, chairman of the board of the Prairie Oil & Gas Co., who notified producers early in July that his company would curtail purchases by 40,000 barrels daily because refinery customers would buy that much less from the Prairie. Of the deliveries by the pipe line company, about 10 per cent is shipments tendered by companies other than the Prairie Oil & Gas Co. The statement does not include oil delivered in Texas by the Pure Oil Co. of Texas, a 100 per cent subsidiary of the Prairie Pipe Line Co., nor deliveries of the latter company itself to Gulf Coast terminal for coastwise shipment.

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CLEVELAND, Aug. 11—Richfield Oil Co. has established a chair of aviation education at the University of Southern California. The chair is to be known as the Talbot chair, being named after James A. Talbot, chairman of Richfield.

The Western Air Express has established a chair of commercial aviation at the same university named after Harris M. Hanshue, company founder.

# Economic Limit for Gas Lift Production May Come Early at Oklahoma City

By William F. Lowe

N. P. N. STAFF WRITER

OKLAHOMA CITY, Aug. 2.

WHEN the flush is off at Oklahoma City, what will the next move be?

Will the gas lift prove as successful a production method as at Seminole, or will pumping be resorted to? Both methods will doubtless be used, but opinion is divided as to their relative effectiveness and their effect on lifting costs. Estimates of the economic limit for either method run as high as 150 barrels.

The gas lift experiments to date have been conducted largely on the lime wells and have not been particularly encouraging. This is due in part to the large volumes of water handled and to the restrictions of proration. It is generally conceded these gas lift wells would make better records if allowed to produce daily. The intermittent proration schedule prohibits their being opened except at stated weekly intervals.

At present there are 17 lime wells on the gas lift, whose production averages 90 per cent water. In only one well does the volume of water fall below 50 per cent of total fluid handled and this well is also the only one making more than 1000 barrels of oil per day. The others will not average much over 200 barrels. It is obvious that the handling of these large amounts of water for so small a yield of oil is not likely to be a very profitable undertaking. However, it might be if the wells were produced daily.

The accompanying table presents other statistics on these gas lift wells. It will be noted, from the average length of the tubing strings, that the fluid columns stand high in the holes. Submergence averages about 1400 feet, which accounts for the rather high kick-off pressures. Considering the fact that such a large percentage of the total fluid lifted is water, the working pressures are not particularly high, though the amount of input gas is raised in consequence.

Many of the difficulties encountered in the lime wells are not anticipated in those bottomed in the sand. This however, is a matter of speculation, for all of the latter are still in the flowing stage. Engineers seem to agree that water in the greater portion of the sand wells will not present merely so great a problem. Some of them contend that the drive in the lime was due more to the hydrostatic head than to gas and that the reverse is true in the sand.

This may be the present condition, but when the formation gas is reduced to less than 3,000,000 million cubic feet per day, water is quite likely to make trouble. It is probable that before this point is reached the wells will have quit flowing. The next problem will be the method of producing them economically.

No insurmountable obstacles to flowing these 6500-foot wells with gas lift appear at present. Increased depth does not necessarily mean additional difficulties, unless greater initial equipment expense may be so considered. Working pressures need not be a great deal more than at Seminole.

As the fluid column in the wells goes down, due to depletion of formation gas, input gas volumes may be stepped up considerably. This was true at Seminole. But since the wells at Oklahoma City are 2000 feet deeper, some new records in the required volumes per barrel raised may be looked for. This one feature may mark a fairly short life for gas lift operations. The economic limit may come early beyond which the volume of input gas would be so large as to be impractical. Some engineers believe that the present intermittent, wide open proration will bring about just that result.

In any event, there remains a vast amount of experimentation before the gas lift is working properly in these deep wells. The problem of tubing sizes, whether in tapered or straight strings, is already being discussed. It is suggested that 4¼

TOTAL production per day of 17 wells at Oklahoma City now being produced from the lime formation by gas lift.

Number of days produced —29.

Formation gas handled, per day—19,888,000 cubic feet.

Gas handled through compressor, per day—30,378,000 cubic feet.

Oil production per day—6855 barrels.

Water produced per day —60,826 barrels.

Average gas fluid ratio—1361 cubic feet to one barrel of oil.

Tubing size—2 and 2½ inches.

Tubing depth—2397 feet. Average working pressure —358 pounds.

Average kick pressure—569 pounds.

to 3 to 2-inch will be used first, though some operators believe that the last two will answer the purpose. There is some lamentation over the fact that the wells were completed with 6-inch casing. Larger pipe would make possible the use of larger sizes in tapered tubing, for which the experts claim a greater efficiency.

How to flow the wells is another question. In a 6000-foot string of tubing, it would seem the greatest efficiency could be obtained by flowing through it rather than in the annular space around it. Gas should be put down through the latter so that the oil would not have to meet the added resistance of the upset connections and collars. The friction loss of gas would be greater by this method but the oil will be easier to move. This method will also require less gas.

The Oklahoma City pool has one aid to any artificial production method. Its holes are straight. For either gas lift or pumping this eliminates a lot of trouble. It will prove particularly true for the latter.

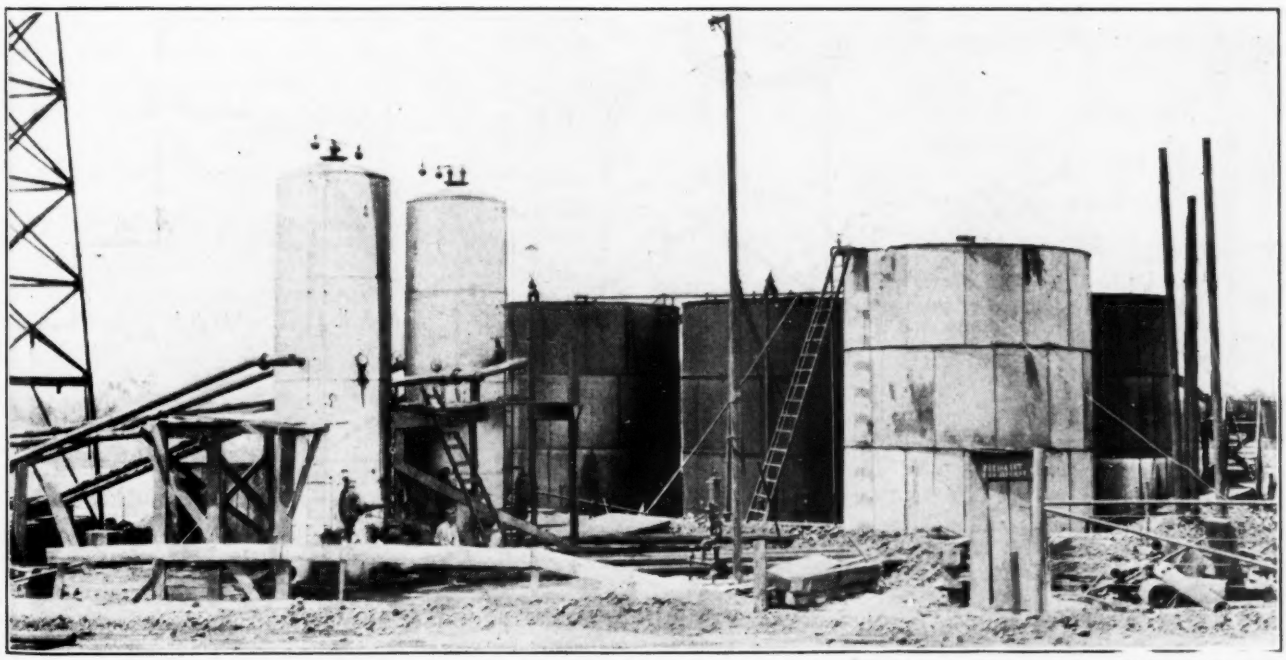
It is thought pumping will play a larger part in the ultimate recovery than gas lift. The equipment cost too will be considerably less. Estimates of the initial expense of a complete installation run as high as $10,000. This includes the power plant, 6000 feet of 2½ inch upset tubing, ¾ inch rods, foundations, etc. Operating costs are another matter. Pumping speeds and length of stroke will be the determining factors, for rod and tubing jobs in such deep holes will be expensive.

When the flowing days are over at Oklahoma City evil times are in store for the "town lotter." With leases so small that there is hardly room for tankage, he cannot hope to put in a compression plant even if he can afford one. The cost of such equipment is about $90 per horsepower, and it takes 200 horsepower, to compress 1,000,000 cubic feet of gas. To be prepared for the future and the high kick-off pressures, double this amount should be available. This would bring the total investment to around $35,000.

Even after this is done there remains the inevitable additional expense of pumping equipment. By this time a fairly sizable nick has been taken in whatever net he may have been lucky enough to make. A partial solution to his later producing problems may be offered in the form of a community gas lift plant. Three such projects are planned for the north end of the field.

One is to be made up of 12 units, 180 to 200 horsepower per unit, and capable of handling 10,000,000 cubic feet of gas per day. It will have a working pressure of 500 pounds. For higher kick-off pressures, auxiliary units costing $1500 each will be installed. The complete installation will set the promotor back about $215,000.

Under the part time proration schedule, such a plant would serve from eight to 10 wells. For steady production however, it would not be sufficient for more than six. To be a paying proposition, the compression plant should receive from seven to 10 cents per 1000 cubic feet of gas compressed. With high fluid columns and fairly large formation gas volumes, neither of these charges would raise the lifting cost per barrel unreasonably. With production decline, the lifting cost will take a quick upward swing as the volume of compressed gas purchased increases. Should the interval between these two periods be short, the co-operative plant might very easily show a loss. The promoter of such a project should have at least a year of near capacity operation to do much more than break even.



**One reason why later operating costs will be high in sections of the Oklahoma City pool. This well was drilled on four townlots. There wasn't room for the tanks except by filling up the slush pits. There is no space for a compression plant to operate the well on gas lift, if that is desirable later**

# Washington Gas Field Supplies Towns in Yakima Valley

TULSA

THE state of Washington has not been associated with natural gas or oil development and it is not widely known that within the state there is a natural gas field, supplying several towns.

Yet such is the case. The Northwestern Natural Gas Co. is supplying towns in the Yakima River valley with gas produced in Benton county, in the southern part of the state. First deliveries of gas were made in December of last year.

Seven producing wells north of Benton City have potential daily yield of 3,000,000 feet. The field is unique. Pressures are figured in ounces, from 15 to 28. Gas is found at a depth averaging 760 feet and as now defined the field is two and one-half miles northwest-southeast and one mile wide. Structural closure has been worked out to be nine miles long and three miles wide.

This territory was in some distant period covered with lava from active volcanoes northwest. In drilling the wells, after the top soil of volcanic ash material is penetrated, the tools go into basalt which is some 650 feet thick. Then another stratum of volcanic ash and the porous layer of basalt is found. This contains the gas.

How this gas, which is a true hydrocarbon gas of 938 B. t. u. came to be stored in this formation can only be conjectured.

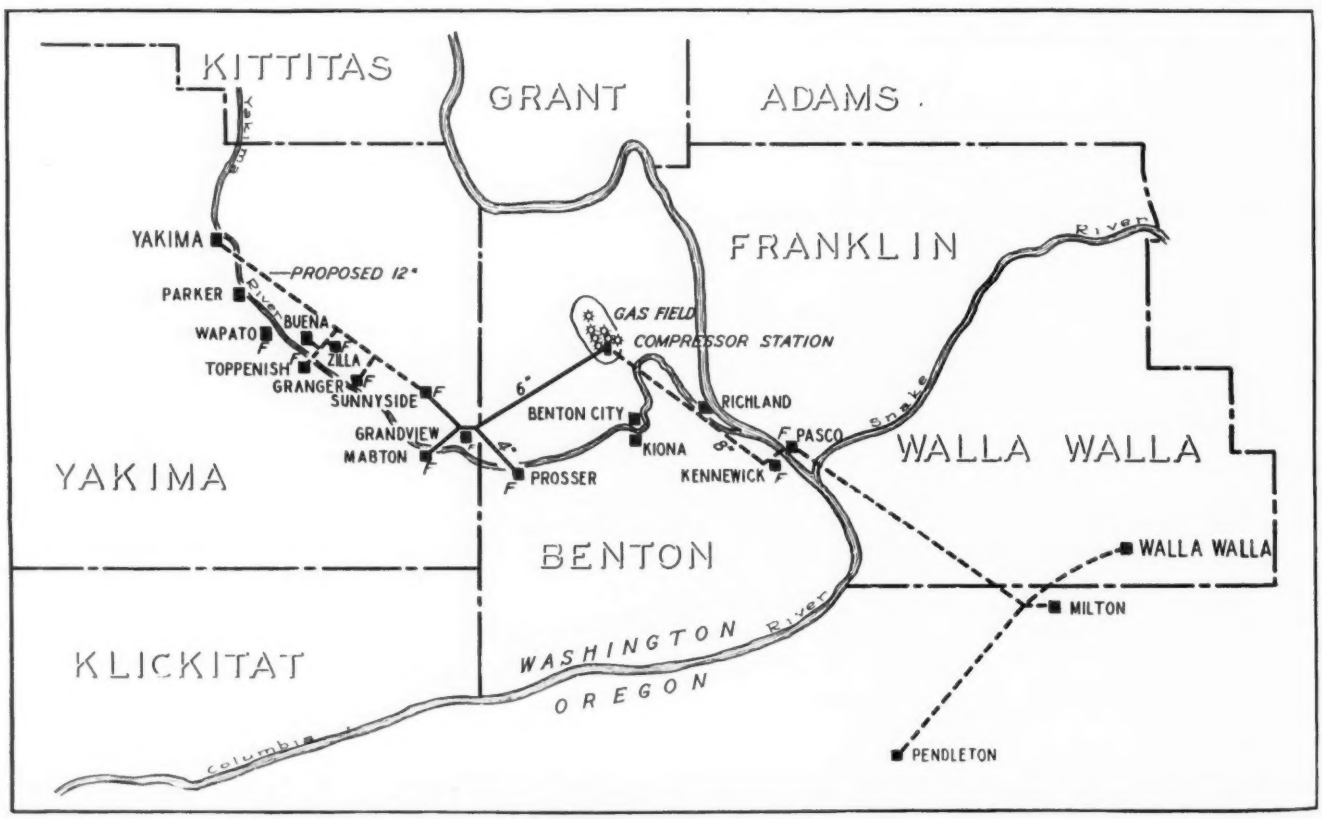
One theory is that it originated in sedimentary beds buried beneath the lava and that faulting opened a communicating crevice between the sediments and the porous zone in the basalt. This theory is given some weight by the fact that no matter how long the wells are opened to production, they do not decline in flow or pressure.

Years ago gas was found in the area in a well drilled for water. In 1916 local citizens formed the Walla Walla Oil, Gas & Pipe Line Co., which developed the field. R. B. Newbern, a natural gas man, heard of the field and in 1929 the Northwestern company, of which he is president, laid the line.

Twenty-four miles of six-inch line, with shorter lengths of four-inch, took gas to the towns of Sunnyside, Grandview, Prosser and Mabton. Other lines will be constructed to Walla Walla and Yakima, where the Lone Star Gas Co. holds franchises obtained in the deal made when the Lone Star bought the gas distributing system in El Paso, Tex.

These towns, larger than those which the Northwestern company now serves, are supplied with manufactured gas. The Northwestern will deliver natural gas to the Lone Star at the city gates. Other small towns in the Yakima valley will be served by the Northwestern.

There appears to be a reserve




**Benton county, Wash., gas field and lines now laid and proposed**

of gas in the area adequate to market that is available. At Mabton, 35 miles from the field, enough gas is produced in the city water well to heat the pump station in the cold weather. It is taken off by tapping the control head. Other evidences have been found of a rather widespread gas are where structure is favorable.

Ordinarily gas with no greater natural pressure than the less than two pounds common to the Benton county wells would be passed by hastily by the gas companies. Open flow tests on the wells over a period of several days were made by Mr. Newbern before he proceeded with organization of his company. The wells behaved as though they were drawing from an inexhaustible store.

# Oklahoma Survey Publishes County Reports on Oil and Gas

TULSA

ONE of the most comprehensive studies ever undertaken by a state geological survey has just been completed by the Oklahoma survey under the direction of Dr. Charles N. Gould, director. With the publication of the final chapters, distributed two weeks ago, each of the 77 counties is reported on for oil and gas.

The work started three years ago. Obviously, the survey lacked the personnel to undertake such a monumental task. So, company and consulting petroleum geologists were enlisted in writing the various county chapters, with a few written by geologists of the survey. The whole Bulletin 40, as it is known, was issued in separate chapters and distributed as printed.

The chapters and their authors are as follows:

40-A—Woods, Alfalfa, Harper, Major, Woodward and Ellis counties. By R. L. Clifton.

40-B—Subsurface distribution and correlation of the pre-Chattanooga (Wilcox sand) series of northeastern Oklahoma. By Luther H. White.

40-C—Oil and Gas in Creek county. By John W. Merritt and O. G. McDonald.

40-D—Subsurface stratigraphy of western Oklahoma. By Frank C. Greene.

40-E—Geology of the oil and gas fields of Stephens county. By Frank Gouin.

40-F—Geology of Okmulgee county. By Robert W. Clark.

40-G—Petroleum geology in Oklahoma. By Sidney Powers.

40-H—Geology of Kay, Grant, Garfield and Noble counties. By G. C. Clark and C. L. Cooper.

40-I—Geology of Caddo and Grady counties. By Clyde M. Becker.

40-J—Pennsylvania paleogeography. By Robert H. Dott.

40-K—Geology of Garvin county, By Robert H. Dott, with chapter on the Robberson field by Robert Roth.

40-L—Geology of Wagoner county. By J. Phillip Boyle.

40-M—Geology of Beckham county. By Frank Gouin.

40-N—Geology of Cleveland and McClain counties. By G. E. Anderson.

40-O—Geology of Kingfisher and Canadian counties. By W. C. Kite.

40-P—Structural trends in southern Oklahoma. By LaVerne Decker.

40-Q—Digest of Oklahoma oil and gas fields. By Bess Mills-Bullard.

40-R—Atoka, Pushmataha, McCurtain, Bryan and Choctaw counties. By C. W. Honess.

40-S—Geology of Pontotoc county. By R. A. Conkling.

40-T—Geology of Osage county. By H. T. Beckwith.

40-U—Geology of Rogers county. By E. G. Woodruff and C. L. Cooper.

40-V—Geology of Washington county. By Everett Carpenter.

40-W—McIntosh county. By Robert W. Clark.

40-X—Payne county by A. H. Koschman.

40-Y—Harmon, Tillman, Jackson and Greer counties. By R. L. Clifton.

40-Z—Carter county. By C. W. Tomlinson.

40-AA—Oklahoma Petroleum, an industrial survey. By Charles E. Bowles.

40-BB—Geology of Seminole county. By A. I. Levorsen.

40-CC—Geology of Pawnee county. By Frank C. Greene.

40-DD—Geology of Comanche county. By Frank Gouin.

40-EE—Geology of Nowata and Craig counties. By Edward Bloesch.

40-FF—Geology of Muskogee county. By Hale B. Soyster and Thomas B. Taylor.

40-GG—Geology of Logan county. By Hubert E. Bale.

40-HH—Kiowa and Washita counties. By Roger W. Sawyer.

40-II—Haskell, Latimer, LeFlorex and Sequoyah counties. By J. A. Stone and C. L. Cooper.

40-JJ—Coal and Pittsburgh Counties. By W. W. Clawson, Jr.

40-KK—Okfuskee county. By J. Phillip Boyle.

40-LL—Johnston and Murray counties. By F. A. Melton.

40-MM—Cotton county. By W. F. Cloud.

40-NN—Mayes, Ottawa and Delaware counties. By H. A. Ireland.

40-OO—Love and Marshall counties. By Fred M. Bullard and John S. Redfield.

40-PP—Jefferson county. By John R. Bunn.

40-QQ—Cherokee and Adair counties. By Ira H. Cram.

40-RR—Tulsa county. By W. F. Cloud.

40-SS—Oklahoma county. By A. Travis.

40-TT—Pottawatomie county. By T. E. Weirich.

40-UU—Blaine, Dewey, Custer and Roger Mills counties. By Ray L. Six.

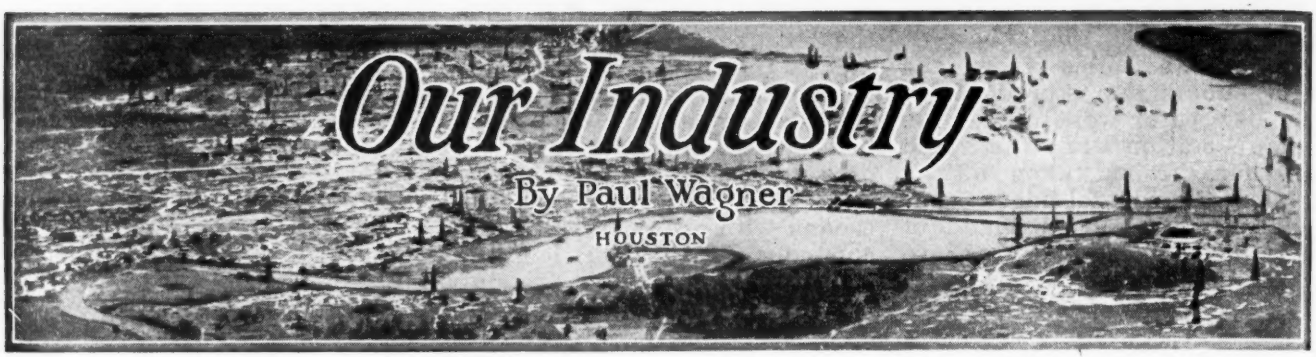
40-VV—Lincoln county. By Dollie Radler.

40-WW—Beaver, Texas and Cimarron counties. By Ray L. Six.

40-XX—Hughes county. By J. Phillip Boyle.

# Champlin Building Line To Oklahoma City

TULSA, Aug. 9.—Champlin Refining Co., of Enid, will begin construction about Aug. 15 on its eight-inch line to the Oklahoma City field. The line is a continuation of the one that now runs from the refinery to the Lovell pool, in Logan county. About 45 miles of new line will be required. It will be the seventh out-going line from the field. Others are owned by Sinclair Pipe Line Co., Shell Petroleum Corp., Oklahoma Pine Line Co., Magnolia Pipe Line Co., Prairie Pipe Line Co., and Empire Pipe Line Co. In addition, field gathering systems are operated by the Tidal Oil Co. and the Indian Territory Illuminating Oil Co.




**MARK J. McLAUGHLIN,** long associated with the executive department of Magnolia Petroleum Co., Dallas, has been made a director. All his life, Mr. McLaughlin has been close to the oil fields. He was born at Petrolia and began his career in the Pennsylvania producing area. Later, he was with the South Penn Oil Co., in West Virginia, where he remained 13 years. Jan. 1, 1912, he joined the Magnolia organization at Electra, Texas. Several years ago he was transferred to Dallas as an assistant to the production manager. Mr. McLaughlin is an ardent golfer.

* * *

**Born, to Mr. and Mrs. Paul** B. Hunter, a son, Bryan Judson Hunter, Aug. 5, 1930. Mr. Hunter is assistant division manager of the Shell Petroleum Corp., Gulf Coastal producing district, Houston.

* * *

**R. P. Brewer is district land** manager and J. D. Hedley district geologist of the Barnsdall Oil Co., operating in southwest Texas through San Antonio offices.

* * *

**M. E. Roberts, San Angelo** district geologist of the Pure Oil Co., has returned to West Texas after spending six months in California in connection with that company's entrance into Pacific Coast activity.

* * *

**Roderick D. Burnham, formerly** land department manager of the Union Oil Co. of California, Los Angeles, is now occupying a new role. He is executive vice president and treasurer of the Central American Aviation Corp., incorporated under Delaware laws to inaugurate Guatemala's first passenger and mail service.

Contract connections for express and freight service have been made with the National Aviation Corp., controlled by Guatemalan interests. The Central American's headquarters are at Los Angeles.

Mr. Burnham is a son of Major Frederick R. Burnham, who served with the late Cecil Rhodes in the upbuilding of the great South African empire and later was chief of scouts under Lord Roberts in the Boer war.

* * *

**Roy A. Reynolds, Fort Worth** consulting geologist, is now on the first lap of a reconnoissance trip for New York bankers that will take him through Germany, Czechoslovakia, Italy and Spain. He departed early in August, via New York, where he took passage. He is expected to be in Europe three to six months.

* * *

**R. M. Millwer, formerly of** Shreveport, has been transferred to the Dallas headquarters engineering office of Magnolia Petroleum Co.

* * *

**H. M. Macomber, recently** elected vice president of the Getty Oil Co., Inc., of Los Angeles, is dividing time between the Texas state headquarters office at Fort Worth and district offices in San Antonio. D. M. Wallace, geologist, also is dividing time between the two cities.

* * *

**Marion E. Brock, executive** assistant in the Houston offices of the Gulf Companies, has returned home after a vacation trip to the Pacific Coast.

* * *

**Seen in Laredo, where they** are watching wildcatting operations in western Zapata county, Texas: Early Deane, of Los Angeles, Smackover and elsewhere; J. R. McCauldin, formerly of Shreveport and later of San Antonio; "Bill" Skogland and J. T. Stover, San Antonians engaged in development.

* * *

**O. H. (Red) Powell, superintendent of the Texas and southern Oklahoma division of the Sinclair Pipe Line Co.,** with Fort Worth headquarters, spent his vacation in the Ozarks.

* * *

**Tom E. Cranfill, president of** the Independent Petroleum Association and one of the principals in Cranfill & Germany, Inc., Dallas, is spending a few months on the Pacific Coast.

* * *

**Larry Porter of the New England Fuel Oil Co.,** Tampico, is spending his vacation in the Rocky Mountain territory.

* * *

**Shelby Myers is now looking** after Greene Production Co.'s central Texas operations at Graham, Young county, having been transferred from Brownwood, where he was field superintendent.

* * *

**Joe Mims of the Pure Oil** Co.'s Fort Worth geological office is now located at Van, Van Zandt county, East Texas.

* * *

**S. C. Dysart of Tampico has** been transferred to Mexico City as vice president and treasurer in connection with the consolidation of the Mexico interests of the Sinclair Consolidated Oil Corp., and the Pierce Oil Corp. Details of Sinclair's absorption of the Pierce interests in Mexico were being worked out early in August by A. E. Watts, vice president of the parent company and president of Sinclair subsidiaries.

# Supply Companies Enter Big Business As Bankers and Engineers

By William F. Lowe

N. P. N. STAFF WRITER

TULSA

CHANGING with conditions, the oil field supply house is abreast of the times.

The warehouse of the supply company is no longer just a store. It is the service station of the oil field operator. The day is gone when it was just a place in which to buy oil field necessities. The supply companies, with doubled and trebled overhead, have moved into the list of Big Business.

The get-rich-quick methods of some companies in a former era have been supplanted by sound business judgment as have those of the successful oil producer. Just as the lease hound and the oil promoter have been forced to adopt more conservative tactics or get out of the game, the boomer supply house was ousted by the ethical codes of the supply companies that have remained in the business.

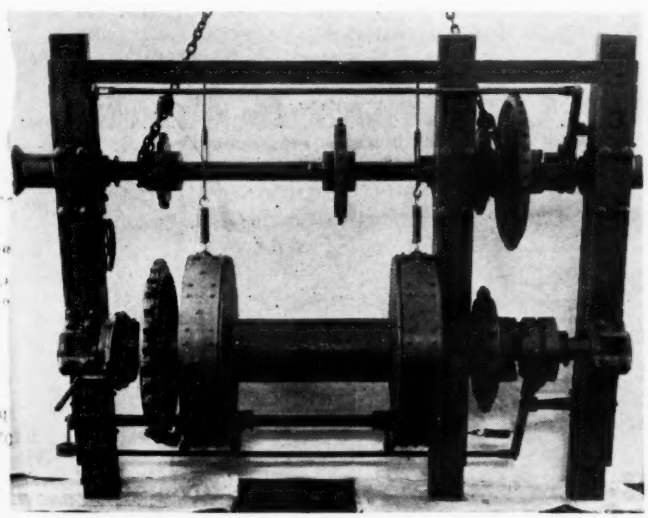
The transition has not been rapid, though the greatest progress has come in the last six or seven years. The change, however, is marked. As in other businesses of like size, the supply structure has been built on a foundation of service. Yet the realization of this fact has been slow in reaching the oil industry as a whole. The suspicious attitude of the large producing companies toward the supply house has shifted to one of confidence. The change, though, is one of comparatively recent date.

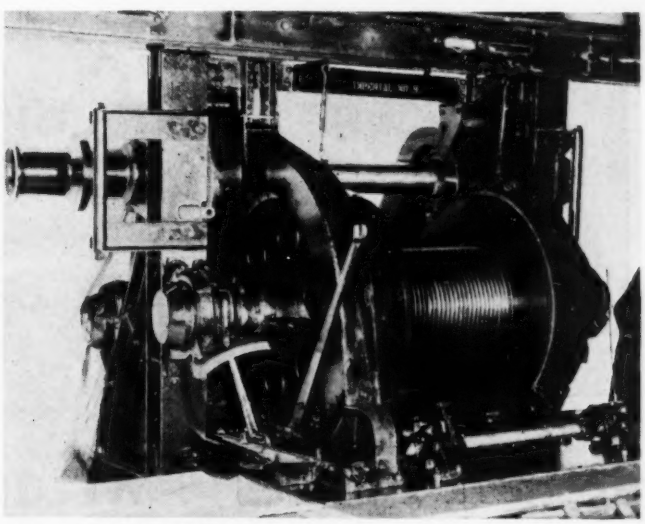
It is quite true that this move on the part of the oil operator is prompted by an ulterior motive. It is good economics. He found that it was cheaper to buy supplies from a company organized for the purpose of selling them than to enter the supply business for himself. Some of the larger oil companies had to learn this lesson by experience and the admission of failure came hard. Yet, there is in this admission a direct compliment to the efficiency of the supply company.

There are any number of illustrations of the above point. In the Mid-Continent one large producer took a staggering loss in the disposal of surplus stock valued in excess of $2,000,000.

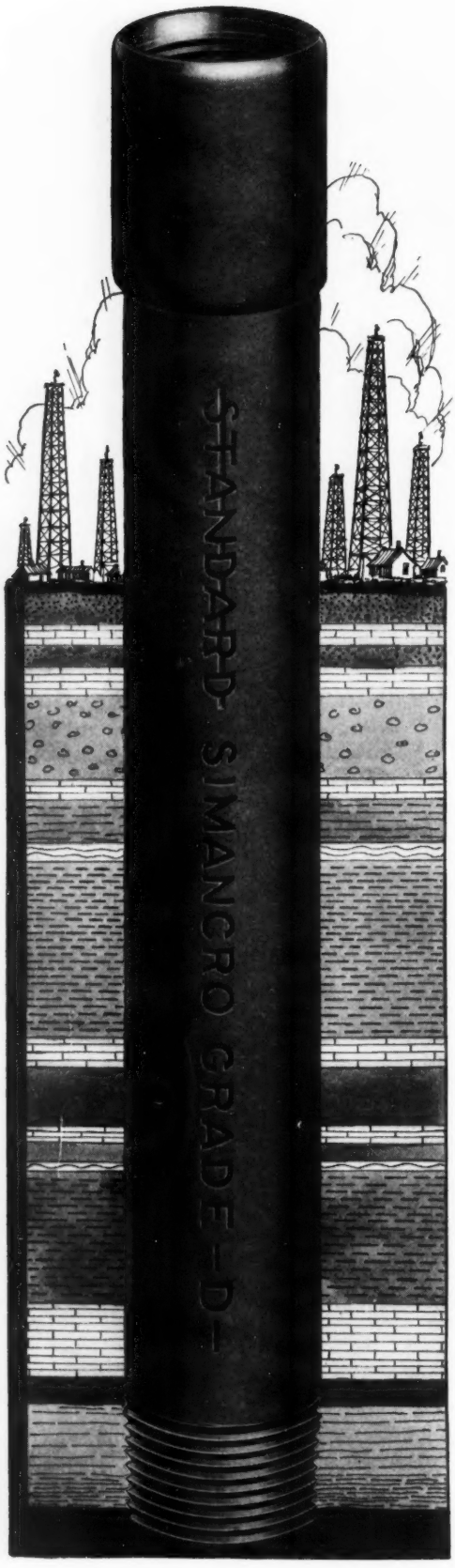
The Rocky Mountain area has an outstanding example of how an oil company warehouse became a liability instead of an asset. The cause was overstocking and the reason lay in the desire to eliminate the supply company profit. The result was that the carrying charges on the enormous supplies ate up the initial saving and raised the ultimate cost.

It is neither necessary nor expedient at the present time, for a producer to carry a stock greater than his immediate needs. Though he may be operating in every section of the country through numerous subsidiaries, the large purchase for





**A comparative study in rotary hoists. On the left, the three post, babbit bearing, two speed model was commonly used for 3000 foot holes five years ago. On the right is a current design illustrating how all parts have been enlarged and strengthened to meet present requirements. The frame is of structural steel and the roller bearings reduce friction to a minimum. This model is construction for use in the deep country and could be safely used on a 10,000 foot hole. Both machines are products of the Oil Well Supply Company**




# DOWN!
# DOWN!
# DOWN!

## Goes

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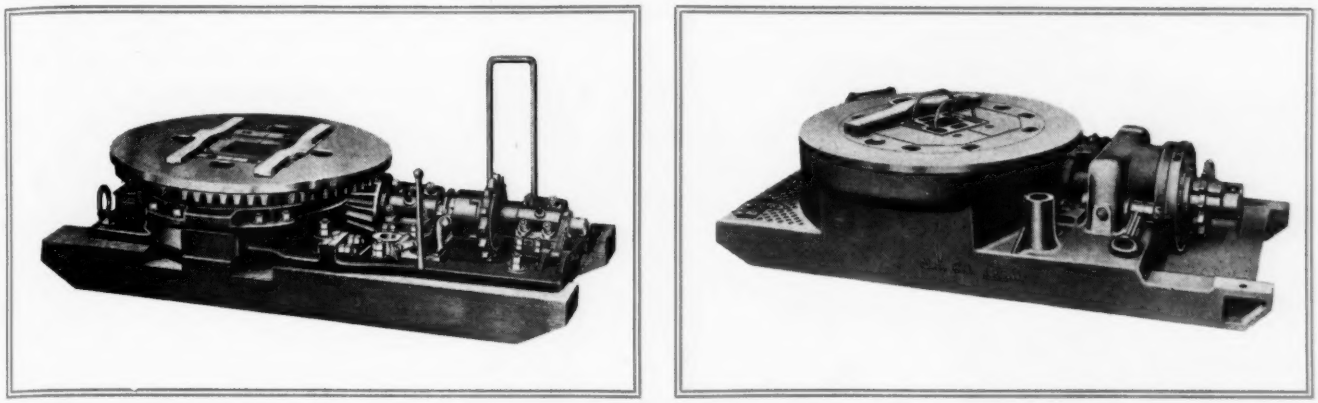


Another contrast in the character of rotary machinery, which illustrates the radical changes of recent years. Most of the rotary tables of five years ago were of the type shown on the left. Noisy and dangerous, with all gears open to dirt and its consequent wear, the machine was unsteady and suitable only for comparatively shallow holes. From the design on the right all of these undesirable features have been eliminated. Gears operate in an enclosed oil bath and the table load is carried on extra heavy roller bearings. The frame is a heavy one piece steel casting and includes the skids, while at the same time forming a housing for all movable parts. It is a recent design of the National Supply Co.

future use is an expensive move. Obsolescence and transfer freight charges make the venture highly speculative and the business he is already in is enough of a gamble to warrant no further element of chance.

On the other hand, the supply houses, through their many retail stores, have built up just the organization necessary to combat the losses so often taken by the oil companies. They too, have reduced their total stocks. In doing so, however, have provided individual stores with adequate supplies to meet the needs of the territory which they serve.

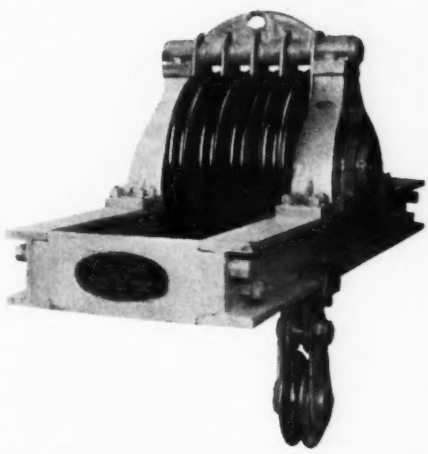
There still are large losses in the handling of oil field materials, but these are often more than compensated for through the marketing facilities of the larger supply companies. An oil company does not have, nor is it logical that it should have, such a department within its own organization.

Perhaps the greatest single item in the red column of the supply company is that of obsolete material. As the technique of drilling and producing has advanced, it has been necessary to improve the tools to meet the increased demands. Every year machinery, boilers and tubular goods have been made heavier or stronger, or both, to meet the needs of deeper drilling.

In the last three years the rotary has largely replaced the older cable tool method of drilling and the changes in the former equipment have been rapid.

Every major improvement represents a potential major loss to a supply company due to the obsolescence of material already on hand. Just how much of a loss this change in machinery design can be, is illustrated in the experience of a major supply house during the past year.

This company was marketing a serviceable and widely sold rotary hoist. With the introduction by a competitor of an improved design, sales immediately began to fall off, with the result that a considerable number of these hoists are still on hand. The unsold remainder represent an investment in the neighborhood of $65,000 and the longer they stay in the warehouse the greater becomes the loss.



An illustration of a modern crown block showing the compact design of recent development. In contrast to the rough cast iron sheaves and individual bronze or babbit bearings of older models, the sheaves of the above are of electric high manganese steel with grooves machined to perfect smoothness. The Timken bearings are automatically greased. This crown block is a product of the Frick-Reid Supply Corp.

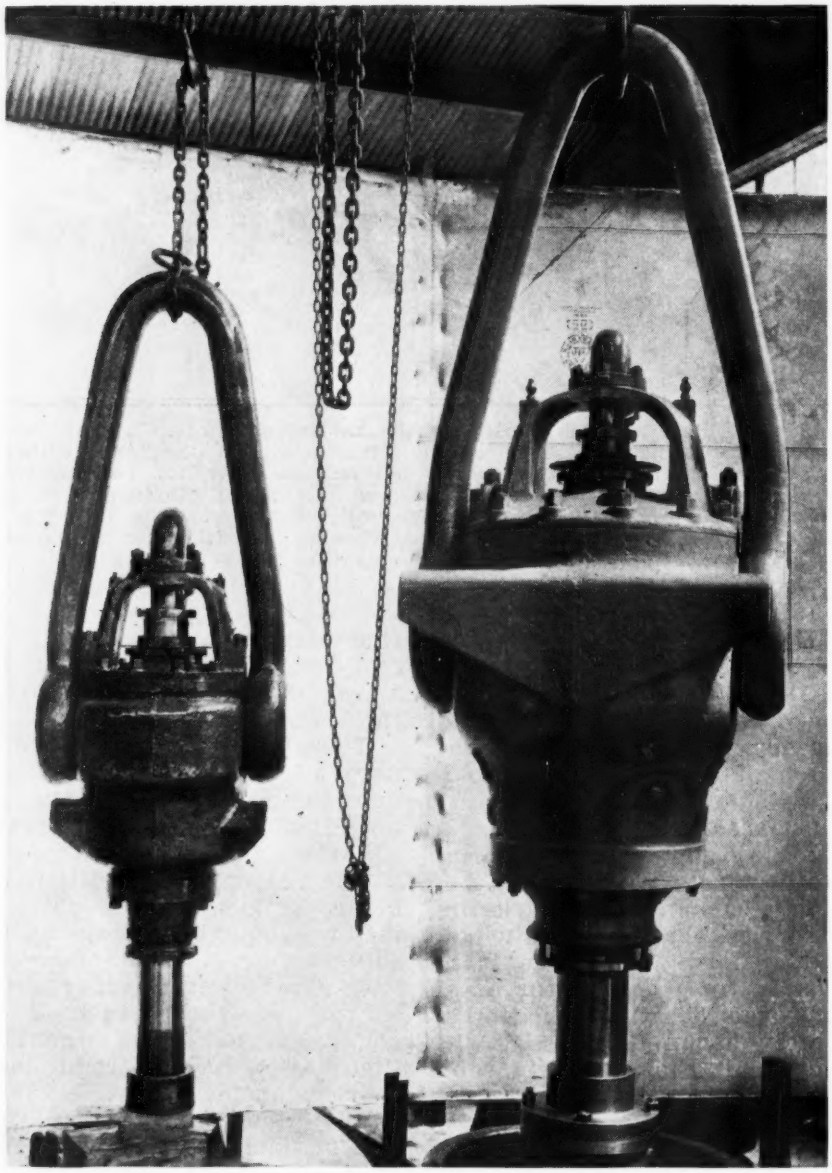
The above is not an unusual nor an isolated case. It is but one among thousands, though not all of them will aggregate so large a total.

The reason is that often the older designs may be shipped into regions where they can be sold at a lower price, and even with the addition of freight charges, are turned to good account. Here again, organization plays a major part in making the business pay.

The above is particularly true of slush pumps and boilers. In five years the former have grown from 10 x 5⅞ x 12 to 15 x 7¾ x 20. In the intervening time there were four other sizes and every supply company had to keep pace with the development by laying in stocks to meet the demand.

During the same period the working pressure of boilers was moved up from 150 pounds to more than double that figure and the horse power from 70 to 125. For both of these oil field necessities there is a fairly constant demand though the sizes will vary as the type of operation varies in different localities.

By a comprehensive system of inventories, the supply company can keep in close touch with the needs of every district and stock the local store accordingly. Materials that are obsolete in one quarter may still have a market in another. With from 50 to 75 stores scat-



**An illustration of the change in design of rotary swivels to meet present drilling conditions. On the left, the smaller of the two weighs but 2150 pounds compared with 6525 pounds for the one on the right. It is however, still widely used in deep drilling. There is nearly as much difference in the working load, one having a 90-ton and the other a 150-ton capacity. The larger swivel has been made in anticipation of future drilling and has a very large safety factor. Its lubricating chamber carries 35 gallons of oil compared to the 10 gallon capacity of the smaller swivel. All other parts have been increased in size in the same proportion. Both designs are products of the Emsco Derrick & Equipment Co., and marketed also by the Continental Supply Co.**

tered about the country, it is easy to see why the larger supply companies can avoid some of the losses that are inevitable to an oil company in the same position.

It is safe to say that even with a large distributing organization, the annual loss to a supply house due to obsolescence will run from one to four per cent of the net return. A goodly share of the obsolete material never gets out of that class and is eventually sold for junk. On such occasions the old time supply man comes near heartbreak. Forged steel tools, hand turned shafts, engines and pumps are sold by the ton, bringing from $4 to $10, depending upon the quality and kind of metal. Yet the move is necessary and a real economy, for it makes room for saleable goods and lowers the carrying charges.

There are a number of things that come under the head of obsolescence that are not due to the march of progress. Chief among these is the rescinding of orders for special equipment by large producing companies. A single instance will serve to illustrate.

After ordering some 40 fittings of special design and of large size, one company requested the supply house to discontinue shipment when but five had been delivered. It seems that the fittings were not quite suitable though the original drawings had been corrected and approved before construction was begun.

Another outstanding case is that of an oil operator who ordered a number of special type motors. Paralleling this order was one for some tools that were designed by the engineers of the oil company buying them. Acceptance was refused on the major portion of these orders and the supply companies were stuck with the remainder.

In any other business it is questionable if the consignee would be able to make such returns to the consignor. This is particularly true if the goods were of special and approved designs. Yet the supply companies find themselves in the difficult position of not being able to refuse. Big accounts have been lost as a result of such action. That this should be the case is a lamentable fact for the whole proceeding is one of poor business. The custom is a hangover from the poorly regulated boom days. It could well be eliminated if the supply houses would co-operate in this as they have in their credit exchange.

This credit bureau is a comparatively recent development. Maintained by the supply companies, it has done much in the reduction of the number of bad accounts. It is no longer the custom to grubstake the would-be contractor without first knowing his record and abilities. However, if his rating is good, the companies do not hesitate to back him.

The supply houses have become more and more the banker of the competent contractor as the oil producing companies have done less and less of their own drilling.

There are few banks however, that would care to assume

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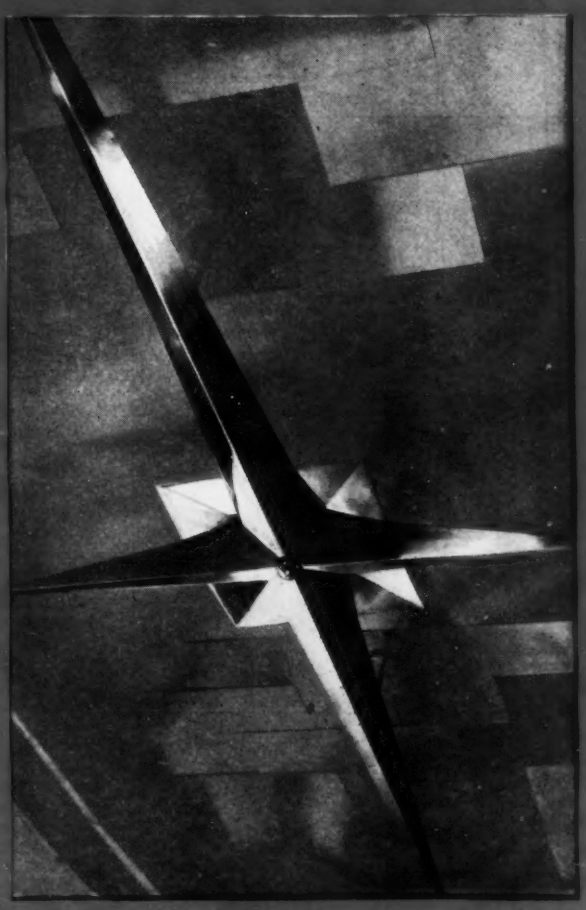

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# NIROSTA METAL

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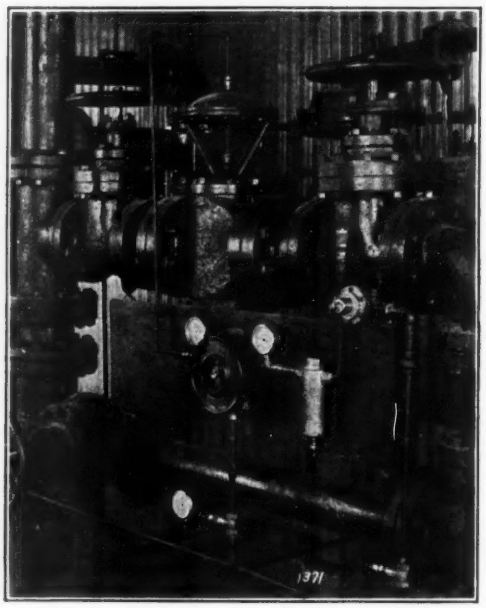
## (*Pilot Operated*)



THE Tycos Back Pressure Regulator is a pilot operated controller, operating either by compressed air or gas. The control pressure works directly against the diaphragm and the instrument proper. This in return operates the pilot valve to release or transmit the necessary motive pressure for opening and closing the control valve.

Whereas with ordinary self-acting type of regulator, a pressure change of several pounds may be necessary to operate the controller, the Tycos Regulator affords that immediate, sensitive, and positive response to the slightest fraction of pressure change in the system under control.

Tycos Pressure Regulators can be changed from the back pressure controller to the reducing pressure regulator, by the simple exchange of pilot valves in the instrument proper. Likewise a change from a higher pressure to a lower pressure controller, or vice versa, can be made by an exchange of diaphragms in the instrument itself, where the control valve itself is suitable for different pressure operations.

Write for Tycos Catalogue Part 1700 which is devoted entirely to the application of Tycos instruments in the oil industry.

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some of the risks they run. Yet the failures today are comparatively few, though the accounts run higher than ever before.

A supply bill for a single hole in the deep area at Oklahoma City, exclusive of the original tools, will commonly run as high as $15,000. If that particular contractor happens to be running from 25 to 30 strings, and some have more than that, the size of his account would get more than a nod, even in a night club. Yet his is but one of many such on the supply books.

A string of bad holes may put both sides in a tough spot, but the usual procedure is to carry on. More often than not the debt will be wiped out eventually by mutual labor. When it works the other way the company is lucky to get 40 cents on the dollar from the wreckage. A single loss in excess of $100,000 has been known to result.

The greatest advance in the business of oil field supplies has been in the development of technical and research divisions.

These departments are the equal of any maintained by the major oil companies. The personnel is made up of trained specialists and they are constantly at work perfecting ideas that will aid the producer. Today, the oil operator can take his production problems to the supply company and its engineering staff will give every assistance toward a solution. If a sale results, as it usually does, it is one of mutual advantage rather than just a stock turnover.

In a large measure the oil industry owes much of its progress to the engineers of the supply companies.

---

LONDON—An attractive reproduction of the famous mosque of Shah Abbas of Ispahan in the Persian Pavilion at the centenary exposition being held at Antwerp, Belgium, houses the oil exhibit of the Anglo-Persian Oil Co., London. The display includes models of an oil well and tankers, samples of oil products and photographs illustrating various phases of the company's oil activity.

# Relative Resistance of Lubricating Oils To Decomposition in Use

By E. R. Lederer* and E. W. Zublin*

PETROLEUM products are bought and sold on specifications with few exceptions only. Specifications usually consist of a number of laboratory tests such as flash, fire, viscosity, pour tests and so on.

Most of these tests give information about the oil at the time of its being tested only, and very few are designed to give indication of the longevity of the products.

The reason why "Life" tests have not been developed to a higher level may be sought in the difficulty of devising abbreviated breakdown methods that approximately duplicate actual engine operating or storage conditions.

The earliest life tests devised were those for the color stability of light oils. Such tests included actual exposure to sunlight, or ultra violet rays, or heat treatment in presence of a copper strip. Considerable work is now being done to develop a life test for gasoline in regard to gum stability. Indications are at present that an oxygen absorption-time curve may give the desired information.

Early investigators of breakdown tests for lubricants have recognized that the resistance to oxidation is one of the most important factors regarding the lasting qualities of lubricants. The Sligh oxidation test, developed at the Bureau of Standards, was designed to measure the resistance to oxidation. This, and other oxidation tests, certainly give some valuable information, but it must be kept in mind that results are not entirely reliable.

For instance, the admixture of very small quantities (1%) of urea[1], nitro benzol and even free sulphur[2] may raise the stability of oils towards oxygen considerably. Yet oils treated in such a manner do not stand up any better than the unblended oils when used in internal combustion engines. Again, turbine oils manufactured by treatment with fuming sulphuric acid are most susceptible to oxidation and yet form less sludge than similar oils treated with 96 or 98% sulphuric acid[3].

On comparing oils that have not been treated it was found that those of paraffinic nature are less readily oxidized than those of asphaltic base, both at relatively low temperatures (150 to 250°F.) as well as the temperatures at which cracking may occur. Consideration of the chemical nature of the two groups of oils may help to explain this behavior. It is generally conceded that paraffin base lube oils after dewaxing consist largely of naphthenic (saturated cyclic) compounds with few and short side chains. Asphaltic oils, on the other hand, besides containing high aromatics, consist of naphthenes with more and longer side chains.[4]

Just as straight hexane will crack more readily than its corresponding cyclo hexane[5] similarly side chains will crack more easily than the rings to which they are attached. Toluene, when subjected to slow oxidation will yield benzyl alcohol, benzyl aldehyde and benzoic acid rather than cresol. If a benzol derivative, similar to toluene but with a longer side chain, is oxidized most of the oxidation product will consist of benzoic acid. The longer the side chain the easier goes the reaction.

This tends to prove that the weakest point

*Texas Pacific Coal and Oil Company.

[1]F. Hofman and M. Dunket Brit. Pat. 284616, Nov. 24, 1925.

[2]Brian Mead et al. Ind. Eng. Chem. 19, p. 1240, 1927.

[3]Butkov, Erdoland Teer 3, 823, 1927.

[4]Vorlander and Walter, C. A. 20, 539, 1921.

[5]Ipatiev and Dovgelevitch, Ber. 3121, 1911.

FURTHER discussion on the so-called work factor, or "life" test for lubricating oils is contained in the accompanying article, prepared by Dr. E. R. Lederer, vice-president of the Texas Pacific Coal and Oil Co., and E. W. Zublin, chief chemist for the same company.

This article follows the publishing, in June 11th issue of National Petroleum News, of an article by J. G. O'Neil, chief chemist, Engineering Experiment Stations, Annapolis, and F. M. McGeary, materials engineer, Bureau of Engineering, Navy Dept., Washington, in which the work factor method of evaluating lubricating oils was described and some of the data obtained through such tests was presented.

Messrs. Lederer and Zublin conclude that even tests as carefully worked out as those of the Navy Department may present a misleading picture as to the performance of the oil in actual usage. Certain characteristics of the oils, such as initial cracking point, resistance to oxidation, induction period, and so on, nobody has yet been able to measure accurately, they point out, and, therefore, actual performance has not yet been simulated in laboratory tests.

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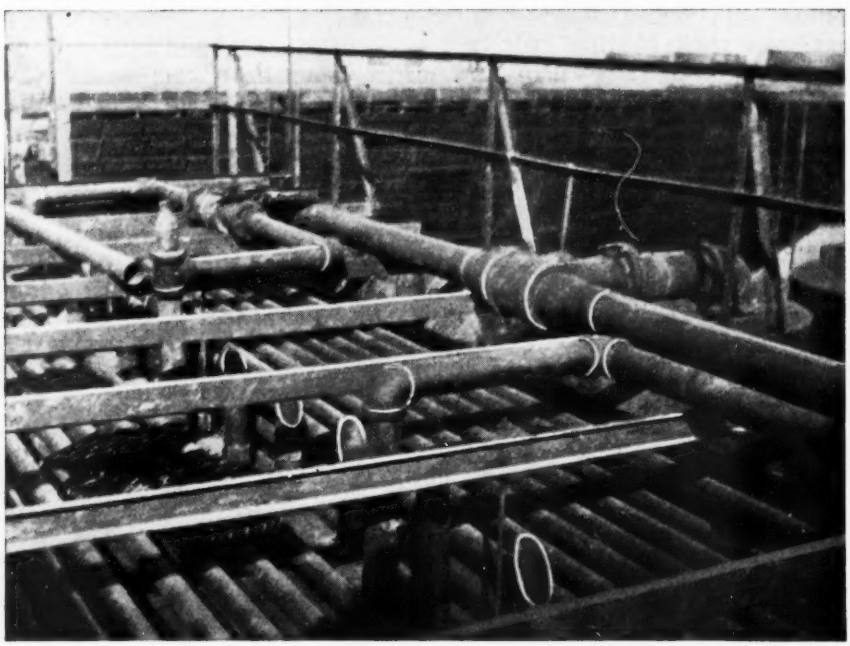

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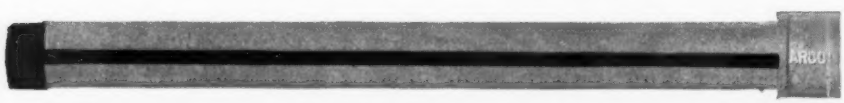


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of the side chain exists where it joins the ring; and it also explains why so-called asphaltic oils break down more readily than paraffinic. Experimental evidence has been brought out by Sachanov and Tilichev[6] who found that side chains split from naphthenic rings quite readily while the ring itself is relatively stable.

A life test for lubricating oils that does not depend on oxidation only was developed by the Navy Engineering Station at Annapolis, and is known as the "Work Factor Method." A description of the method has recently been published by J. G. O'Neill and F. M. Geary[7]. Much credit is to be given to the originators of this test, particularly because an actual bearing is used in carrying out the test.

Oil is circulated through the bearing for 100 or 150 hours at certain pressures. The increase in viscosity, neutralization number, precipitation number and carbon residue are measured. By means of a set of formulae these values are converted into the work factors. The ideal work factor is equal to 1.0. Actual work factors are usually below this figure and oils of average work factor down to .5 are considered acceptable.

One of the drawbacks of this method lies in the fact that a number of values for "Initial and Final Rejection Points" are used, which are entirely of empirical nature. There is no proof that these adopted values are properly selected. For instance, the initial rejection point for the carbon residue of 90-100 viscosity at 210 oils has been set at 1.55, independent of the source of the oil. Such a specification, though within the spirit of most present day specifications, is subject to criticism at least in regard to "life" specifications.

It is known that the carbon residue of the test and the performance cannot be correlated for different types of oils and for all conditions. If the oil is used at comparatively low temperatures, for instance, to lubricate a bearing only or a water cooled gasoline engine, the carbon residue of the test and the carbon deposited on the lubricated or heated surfaces stand in fairly good agreement[8].

However in air cooled or Prestone cooled internal combustion engines such as are used in modern airplanes or in high speed diesel engines no such correlation can be found. Naphthenic oils of low carbon residue deposit as much or more hard coke than any paraffinic oil of two and three times as high a carbon residue. This difference may be caused by the lower initial cracking point of naphthenic as against paraffinic oils.

It must be kept in mind that the rate of cracking approximately doubles with every 18°F. rise in temperature, starting from the initial cracking point. A difference of 50°F. of the initial cracking point, therefore, is accompanied by a rate of cracking of the oil

TYPICAL analyses of lubricating oils, where breakdown was measured by determining the increase in (1) viscosity after removing crank case dilution by topping under certain conditions to the original flash; (2) carbon residue; (3) precipitation number. The neutralization number was omitted as being inconsistent.

## Oil A

| | New | Used 24 Hours — As received | Used 24 Hours — Topped to original flash |
|---|---|---|---|
| Gravity | 27.4 | ..... | ..... |
| Flash | 510 | 410 | 505 |
| Fire | 580 | ..... | ..... |
| Vis. at 210 | 120 | 131 | 145 |
| Vis. at 100 | 1,572 | ..... | 2,088 |
| Vis. Index | 102 | ..... | ..... |
| Carbon Resid. | 1.30 | 2.11 | ..... |
| Precipitation | 0 | .10 | ..... |
| | | **Total** | **Per Hr.** |
| Increase in Vis. at 210 | | 25 | 1.0 |
| Increase in Vis. at 100 | | 516 | 25 |
| Increase in Carbon Resid. | | .81 | .034 |
| Increase in Precipitation No. | | 1.0 | .004 |

## Oil B

| | New | Used 7½ Hours — As received | Used 7½ Hours — Topped | Used 15 Hours — As received | Used 15 Hours — Topped |
|---|---|---|---|---|---|
| Gravity | 26.2 | ..... | ..... | ..... | ..... |
| Flash | 490 | 435 | 490 | 320 | 490 |
| Fire | 565 | ..... | ..... | ..... | ..... |
| Vis. at 210 | 117 | 121 | 129 | 129 | 144 |
| Vis. at 100 | 1.566 | ..... | 1,830 | ..... | 2,221 |
| Vis. Index | 99 | ..... | 99 | ..... | 99 |
| Carbon Residue | 1.63 | 2.00 | ..... | 2.58 | ..... |
| Precipitation | 0 | .80 | ..... | 1.20 | ..... |
| | | **7½ Hrs.** | **Per Hr.** | **15 Hrs.** | **Per Hr.** |
| Increase in Vis. at 210 | | 12 | 1.6 | 27 | 1.8 |
| Increase in Vis. at 100 | | 264 | 35 | 655 | 44 |
| Increase in Carbon Resid. | | .37 | .050 | .95 | .063 |
| Increase in Precipitation No. | | .80 | .107 | .120 | .080 |

## Oil C

| | New | Used 28 hours as received |
|---|---|---|
| Gravity | 23.5 | ..... |
| Flash | 490 | 485 |
| Fire | 595 | ..... |
| Vis. at 210 | 120 | 127 |
| Vis. at 100 | 2,240 | 2,380 |
| Vis. Index | 73 | 75 |
| Carbon Resid. | 1.68 | 2.09 |
| Precipitation No. | 0 | .10 |
| | **Total** | **Per Hour** |
| Increase in Vis. at 210 | 7 | .3 |
| Increase in Vis. at 100 | 140 | 5.0 |
| Increase in Carbon Resid. | .41 | .016 |
| Increase in Precipitation No. | .10 | .004 |

**The following table contains a summary of the change per hour of the three oils cited:**

| | Oil A | Oil B | Oil B[9] | Oil C |
|---|---|---|---|---|
| Increase per Hr. in Vis. at 210 | 1.0 | 1.6 | 1.8 | .3 |
| Increase per Hr. in Vis. at 100 | 25 | 35 | 44 | 5 |
| Increase per Hr. in Carbon Resid. | .034 | .050 | .063 | .016 |
| Increase per Hr. in Precip. No. | .004 | .107 | .080 | .004 |

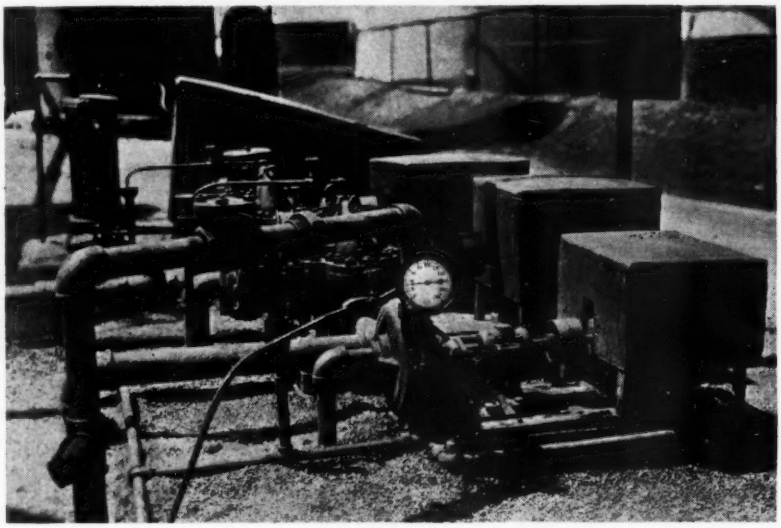
As will be noted there is a tremendous difference in quality of the three oils.

[6]Neft. Khoz. No. 11 & 12, 1927.

[7]NATIONAL PETROLEUM NEWS—June 11, 1930—Page 63.

[8]C. J. Livingstone & W. A. Cruse—Ind. Eng. Chem. 21, 904-8, 1929.

# Welds Individual Motor Housings



**Ventilated housings for pump motors at El Dorado refinery**

ELDORADO, Kans.

THE Eldorado Refining Co. has taken novel means to avoid the collection of an explosive mixture of gasoline vapor and air around pumps driven by electric motors.

By building small welded steel covers for the individual units, and removing the main house that originally covered the entire battery, general manager T. A. Helling feels that he has removed one more source of fire hazard.

A certain amount of vapor and gasoline drippings is bound to accumulate around the pumps. When they are housed in the same building the chance of an explosive mixture accumulating is greatly enhanced. The box-like coverings shown in the accompanying picture, made of sheet steel, with welded corners and ventilation slots cut in the sides provides ample coverage for the motors, and at the same time their cost is a great deal less than the investment in spark proof motors would amount to, if eliminating the hazard in that manner were to be attempted.

with the lower initial cracking point of about seven times the rate of cracking of the oil with the higher initial cracking point at any temperature above the higher initial cracking point. Cracked oils are subject to oxidation, polymerization and subsequent coke and sludge deposition.

For the reasons developed, it appears to be inevitable to classify life test into at least two groups: Low temperatures and high temperature tests; or else, if only one set should be found to be more practical, the more severe test, the high temperature test should be used in preference to the low temperature test. The former more readily and more severely classifies oil according to longevity. Oils that pass severe tests certainly will stand up under easier conditions.

Very recently some laboratories have come to realize the importance of this problem with the result that ring sticking tests in prestone cooled one-cylinder engines are being developed. No results have been published yet, but indications are that asphaltic oils, due to their faster breakdown, cause rings to stick much more rapidly than paraffinic oils.

A means of comparing oils as to their suitability is to analyse crank case oils, if possible from airplane or high speed diesel engines, and to compare them to samples of the fresh product. While it is difficult to obtain accurate data on the time of use and engine conditions, it has been found by carrying this work on over a long period of time that a good picture can be obtained regarding the life of various brands of oils for the particular purpose. It was found that certain oils consistently show large deterioration, while others used in the same type of engines for a similar length of time seemed to be hardly affected.

Crank case oils from automobiles usually give little information. Driving conditions are too irregular and breakdown of the oil usually has not gone far enough to show the large difference found in crank case oils from airplanes.

The writer has done considerable work in comparing crank case oils from airplanes in order to find, if possible, if any of the present routine laboratory tests can be correlated to "life." The result has been negative. While indications are that the viscosity ratio, or, its substitute, the viscosity index[9] in its extremes points in certain directions, inversions over a wide range were found. In fact the data on hand tend to show that oils of viscosity indexes in the range of 70 to 90 offer the greatest resistance to breakdown.

The breakdown of oils was measured by determining the increase in—

1. Viscosity after removing the crank case dilution by topping under certain conditions to the original flash;
2. Carbon Residue;
3. Precipitation Number;

the neutralization number was omitted as being inconsistent.

It is to be hoped that the ring sticking tests now under investigation will yield crank case oils sufficiently broken down for analysis. Inasmuch as these tests are carried out on the block, results should be reproducible within fairly close limits.

For special oils such as turbine oils special tests have been devised. The Funk sludging test, in which oil and water are circulated at slightly elevated temperatures while bubbling

[9]Dean and Davis—Chem. & Met., Nov., 1929.

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THE LEACH FRACTO CONDENSER was the first heat exchanger developed for high pressure service. The profitable operation of cracking plants employing Leach High Pressure Fracto Condensers has resulted in the adoption of Leach equipment under varied conditions with several of the most widely adopted cracking systems. Over 440 tons of Leach Exchangers have been shipped in the last two months for use in this and foreign countries.

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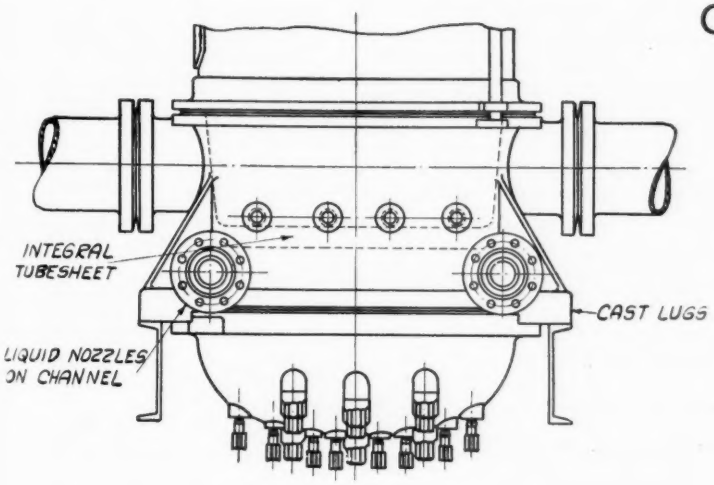


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air through the mixture, tends to estimate the length of time for which oils may be used in turbines. Discoloration, demulsibility and precipitation after a certain number of hours are the criteria for this test. The most important property of turbine oils appears to be their resistance to oxidation. Naphthenic oils break down very much more rapidly than paraffinic oils, and in actual performance this has been checked and corroborated. Whereas asphaltic oils gave satisfactory service in certain types of turbines for 2000 hours, paraffinic oils lasted 20,000 hours and longer.

This is of particular interest if compared with results obtained by the Navy 100 hour machine. O'Neill and Geary point out that naphthenic oils give as good results as paraffinic oils do. The breakdown of the oils in both the turbine and the 100 hour machine occurs between the rubbing surfaces of the bearings and for that matter results should point in the same direction.

This, however, is not the case and apparent discrepancies may have two causes: First, it is possible that oils require a certain induction period before a more rapid decomposition sets in at the comparatively low temperatures occurring in the bearings. This induction period (if existing) is quite obviously much shorter for asphaltic than for paraffinic oils. For well refined asphaltic oils it may be of the order of 2000 hours, while for high grade paraffinic oils it may be ten times as long. A bearing test lasting only 100 or 150 hours naturally will not readily discriminate between two such oils.

Second, the cause may be sought in the weighting of the various physical characteristics measured in the Navy test. The average work factor for viscosity is counted as one-fourth of the total average work factor; the other three-fourths being represented by neutralization number, precipitation number and carbon residue. Now, any change of the oil, such as decomposition followed by oxidation and polymerization, will first be noticed by an increase in viscosity long before precipitation number and carbon residue are seriously affected. Only when the polymers exceed a certain concentration will they be precipitated in the precipitation test.

In other words, increase in viscosity is a more sensitive and more important criterion than the other three mentioned for a low temperature test as short as the Navy test. As a matter of fact, for equally well refined oils of naphthenic and paraffinic nature the increase in viscosity over a 100-hour period is considerably larger, for the naphthenic oil than for the paraffinic. If the tests were prolonged to 1000 or 2000 hours, conditions similar to those found in turbines would be developed. Naphthenic oils would have broken down completely, while equally well refined paraffinic oils would still be in good condition for an indefinite number of hours.

This comparison tends to indicate that even tests as carefully worked out as the Navy work factor test, may, under certain circumstances, present an entirely false or misleading picture. Any abbreviated laboratory test is subject to the same criticism. So far, only actual performance tests under average engine performance conditions can give the desired information because there are certain characteristics of the oils, such as initial cracking point, resistance to oxidation, induction period and so on, which nobody has been able to measure accurately.

---

**The Foxboro Co., Foxboro,** Mass. A high pressure recording flow meter and flow controller for operating pressures of 2500 pounds per square inch. They can be mounted in place without using loading devices, making them adaptable to modern field service conditions.

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"AERODYNAMIC." Ser. No. 299,163. Skelly Oil Company, Tulsa, Oklahoma. For gasoline and motor-fuel oils.

"OILWAYS YOURS TRULY." Ser. No. 299,354. United Oil Company, Inc., Baltimore, Md. For lubricating oil.

"MINITEST." Ser. No. 284,533. Fortuna-Werke Spezialmaschinenfabrik A.-G., Stuttgart-Cannstatt, Germany. For lubricating oils and greases and power-transmission oil.

"HOCO," representation of a star and a triangle. Ser. No. 298,537. Houston Oil Company of Texas, Houston, Texas. For gasoline, kerosene, gas oil, motor-lubricating oils, and transmission oil and grease compounds.

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"METALEZE." Ser. No. 299,023. Southwestern Lubricant Company, Waco, Texas. For lubricating oil and grease.

"KEMY." Ser. No. 294,438. Petroleum Chemical Company, Tulsa, Oklahoma. For chemical preparation for treating cut oil to separate water therefrom.

"SKELLY AERODYNAMIC," and representation of four wings. Ser. No. 299,162. Skelly Oil Company, Tulsa, Oklahoma. For gasoline and motor-fuel oils.

"BITUWAX." Ser. No. 288,311. American Tar Products Company, Pittsburgh, Pa. For crude or raw coal-tar distillates.

"ACTO." Ser. No. 296,831. Stanco Incorporated, Wilmington, Del., and New York City. For refined, semirefined and unrefined oils and greases made from petroleum, etc.

"SAELUBE." Ser. No. 294,305. Indian Refining Company, Lawrenceville, Ill. For lubricating oils and greases and oils and greases in the nature of lubricants.

"GILMORENE." Ser. No. 294,418. Gilmore Oil Company, Los Angeles, Calif. For gasoline lubricating oils and lubricating greases.

"KLENZMOTOR." Ser. No. 294,731. Klenzmotor Corporation, Fort Wayne, Ind. For greases and oils used as a cleaning lubricant.

"WHITE." Ser. No. 293,648. White Star Refining Company, Detroit, Mich. For petroleum products.

Representation of a white star in a circle with background of blue. Ser. No. 293,649. White Star Refining Company, Detroit, Mich. For petroleum products.

"FLYING CLOUD," and representation of an airplane. Ser. No. 294,148. Dans & Dans, Hackettstown, N. J. For gasoline lubricating oils and greases, and kerosene.

"STA-VIS," with picture of a can. Ser. No. 270,636. Industrial Grease & Drum, Inc., St. Paul, Minn. For lubricating greases and lubricating compounds and lubricating oils.

"PRECISION OILS," Ser. No. 289,265. Colorado Petroleum Products Co., Denver, Col. For gasoline, lubricating oils, and lubricating greases.

ADVERTISING PAGES REMOVED

# New Refining Patents

**Pressure Cracking. U. S. P. 1,762,229, June 10, 1930, application filed April 20, 1927; Edward W. Isom, Assignor to Sinclair Refining Co.**

YIELD losses occur in pressure cracking at the pressure release stage, when dissolved or entrained gases and very light vapors escape from the condensate and carry along heavier components which would be useful in the desired product. A method has therefore been developed for improved recovery of condensible gasoline hydrocarbons from uncondensed vapors of cracking operations, and in return to the cracking process of light unsaturated hydrocarbons recovered as part of the process.

To carry out the new process, the cracked products are subjected to condensation, the condensate is separated, and the uncondensed portion is scrubbed, first with the condensate and then with raw oil which is to be cracked. The condensate from the first scrubbing is redistilled to recover the gasoline hydrocarbons. The products absorbed in the second scrubbing are expelled from the raw oil in the cracking still. Apparatus is described for the successive scrubbing operations and for the recovery of the desired products from the condensate.

### What Is Claimed

In cracking heavy oils, the improvement which comprises subjecting the uncondensed gas and vapor from the condensing operation to a scrubbing with condensate, and scrubbing with raw oil the gas and vapor still remaining uncondensed, the raw oil from the second scrubbing operation being supplied to the cracking operation.

* * *

**Cracking and Hydrogenating. U. S. P. 1,762,433, June 10, 1930, application filed July 24, 1924; Milton J. Trumble.**

A TWO-PHASE cracking process has been developed in which any unsaturated hydrocarbons, initially present or formed by cracking, are hydrogenated promptly and as a part of the process. The apparatus specified for this purpose includes a set of tapered rotary scrapers for removing carbon as it is formed.

The essence of the new process is in the use of inverted cups or traps to provide extensive and numerous contact surfaces for the hydrogenation reaction. These are so arranged in the cracking still as to conserve the heat of flue gas and to provide ample contact between the hydrogen and the liquid.

Two forms of apparatus are described for the process. Both are applicable either to batch or continuous operation; and stills of the type used are applicable to other two-phase reactions in which extensive and repeated contact is required between a liquid and a gaseous reagent disposed in a series of traps through the liquid.

### What Is Claimed

A two-phase oil treating apparatus including a vertical still, inverted cup traps arranged to confine a gaseous reagent at different levels in contact with and throughout the oil in the still; and separate control means for admitting the gaseous reagent to each trap.

* * *

**Alcohol Extraction. U. S. P. 1,766,768, June 24, 1930, application filed Dec. 30, 1927; Theodore Al. Werkenthin, Assignor to Solar Refining Co.**

IMPROVEMENTS are disclosed on the inventor's co-pending application (Serial No. 750,783, filed Nov. 19, 1924), covering a method and apparatus for extracting heavy petroleum oils with alcohol.

In the improved embodiment of the invention, both the alcohol and the raw oil are preheated, and forced circulation is used instead of gravity in effecting the admixture and extraction. Gravity separation (settling) of the products having proved inadequate, mechanical (preferably centrifugal) separation is provided. For those cases in which the alcohol must be dehydrated, there is provided a dehydrator equipped with thermostatic temperature control and adapted to be connected with the apparatus or disconnected, as required.

The invention is extremely flexible in its adaptability to selective extraction of desirable products (lubricants, cracking stock, paraffin waxes, residual oils, etc.) from suitable crudes or topped crudes, which may be asphaltic or paraffin base crudes, fuel oils, used crankcase oil, wax-bearing crudes or residual oils or other heavy oils.

### What Is Claimed

Preheating oil, preheating alcohol, successively extracting the oil with the alcohol at a temperature below the boiling point of the alcohol but insuring high solubility of the oil in the alcohol, and centrifugally separating from each successive extraction product the alcohol extract and the undissolved oil.

* * *

**Breaking Petroleum Emulsions. U. S. P. 1,766,057-8-9-60-1-2-3-4-5-6-7 and 1,766,112, June 24, 1930; applications all filed Jan. 21, 1929; 1,766,057-8-9-60 and 1,766,063-4-5 and 1,766,112 issued to Melvin De Groote and Louis T. Monson; 1,766,061-2 to Melvin De Groote and Bernard Keiser; 1,766,066 to Melvin De Groote and Arthur F. Wirtel; 1,766,067 to Melvin De Groote, Louis T. Monson and Arthur F. Wirtel; all assigned to Wm. S. Barnickel and Co.**

THESE inventions are specific embodiments of a general improvement in the art of breaking water-in-oil emulsions, such as cut oil, roily oil, emulsified oil, bottom settlings and the like. Each of the 12 patents specifies a different demulsifying agent. The manner of using these agents follows the usual practice in use of chemical demulsifying agents; the novelty of the inventions lies in the development of new demulsifying agents, having advantages of cost, availability or effectiveness as compared with

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agents hitherto known and used.

**What Is Claimed**

Breaking petroleum emulsions of the water-in-oil type by the action of demulsifying agents, each as claimed in the patent cited:

1,766,057. Wood sulfite liquor containing calcium salts.

1,766,058. Water - soluble salts of sulfo-lignic acids.

1,766,059. Sodium tannate.

1,766,060. Ammonium soap of sulfonated castor oil, 85%; wood sulfite liquor, 15%.

1,766,061. A sulfonic substance made from formaldehyde, naphthalene or the like, and a Twitchell reagent.

1,766,062. Ammonium salt of a sulfonated condensation product of formaldehyde and naphthalene.

1,766,063. A sulfonated condensation product of propyl alcohol with a petroleum derivative.

1,766,064. Ammonium salt of a condensation product of formaldehyde and a petroleum derivative.

1,766,065. Ammonium salt of a condensation product of a ketone and a petroleum derivative.

1,766,066. Ammonium salt of a sulfonated condensation product of propyl ketone and naphthalene.

1,766,067. Ammonium salt of sulfonated glycol-naphthalene.

1,766,112. Ammonium salt of a sulfonated condensation product of glycol and a petroleum derivative.

* * *

**Distilling and Cracking Oils. U. S. P. 1,764,391, June 17, 1930, application filed August 21, 1922; David E. Day.**

AN IMPROVED rotary pipe still has been developed for cracking and distilling heavy hydrocarbon oils. Parallel pipes are so connected to each other and to a central hollow shaft, about which they rotate, that oil may be passed through the shaft and progressively through the pipes and finally discharged from an axil outlet. Application of heat to the pipes is controlled so that the outer pipes are hottest and are at a suitable cracking temperature.

Abrading rods are provided, one or more in each pipe, to increase the effect. The apparatus is characterized by high speed treatment of the oil in thin films. The apparatus is also adaptable, by having the inner tubes hottest, for use as a topping still. For cracking operations, the high speed and large exposed surface permit operating economies and improve the field of desired fractions.

**What Is Claimed**

Cracking hydrocarbon oils by forcing the oil at high speed through tubes mounted to revolve about a center, and increasing the speed as the oil passes over a rod movably located in each tube, under cracking conditions, the increased speed of the oil in the region of the rod aiding to prevent carbon deposition.

* * *

**Apparatus for Cracking Oils. U. S. P. 1,765,167, June 17, 1930, application filed May 27, 1926; Frederick Lamplough.**

AN APPARATUS is provided in which oil is first pumped into a small-diameter heating coil, made by doubling a pipe on itself and then coiling, so that both inlet and outlet are at the top of the coil. From the heater coil the oil passes to a cracking coil of larger diameter pipe, and concentric with the smaller coil.

By means of an automatic pressure - controlled discharge device, when a predetermined pressure is reached in this apparatus the batch is suddenly discharged into a cooling coil, at a velocity sufficient to carry with the oil any carbon which may have been formed. By suitable control of the pressure and temperature of discharge, the uncracked (heavy) portion of the treated oil can be kept in the liquid phase, so that the fractionator has only to treat the lighter (volatile) portion.

**What Is Claimed**

In a cracking apparatus, a pump, a heater supplied thereby, a release valve with yieldably controlled piston under the pressure of the heater, a movable valve element which opens and closes the heater outlet, connections including a lost motion device between piston and valve element, and a throwover mechanism for the lost motion device.

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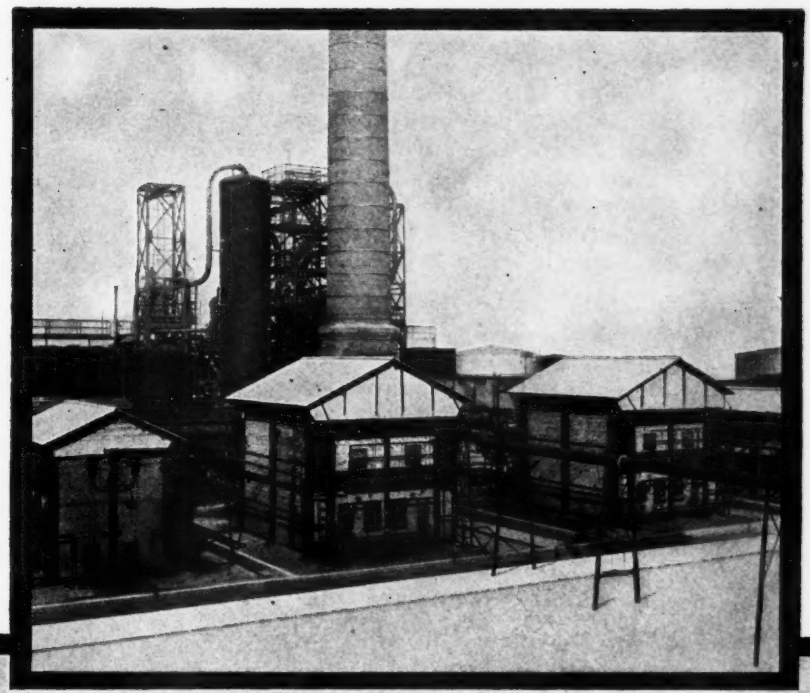
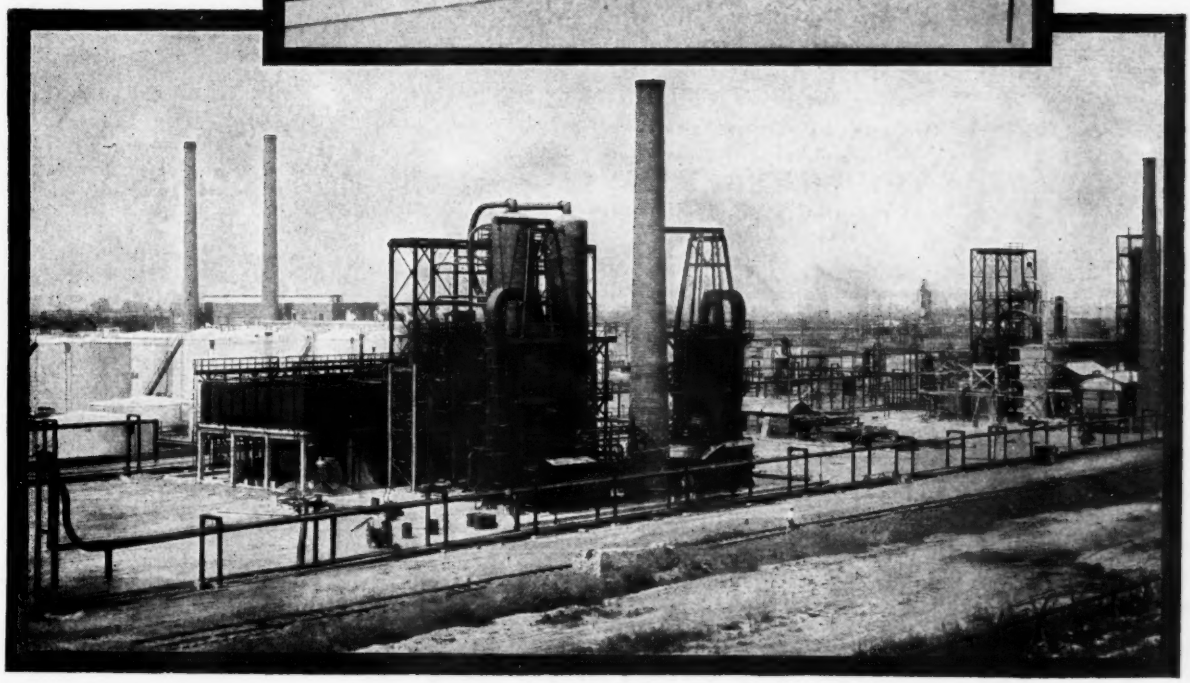
# BADGER?





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# New Patents

Prepared by R. E. Burnham, patent and trademark attorney, 1343 H Street, N. W., Washington, D. C., from whom copies may be obtained at the rate of 20c each. State number of patent and name of inventor when ordering.

## June 17, 1930

### PRODUCTION

**Deep-well-drilling apparatus**—Clarence E. Reed, Wichita, Kans., assignor to Chicago Pneumatic Tool Co., New York, N. Y. Filed Sept. 22, 1927. No. 1,764,854.

**Pump (oil-well)**—Harley H. Markley, Homer, La. Filed July 1, 1927. No. 1,765,085.

**Swivel sucker-rod joint** — Lester B. Leverich, Red Barn, Tex. Filed June 4, 1928. No. 1,765,279.

### MISCELLANEOUS

**Device for dispensing liquors**—George F. Wentz, Colorado Springs, Colo. Filed Dec. 2, 1925. No. 1,763,732.

**Gasoline storage-tank**—Clinton M. Brill, Petersburg, W. Va. Filed Aug. 20, 1929. No. 1,763,950.

**Portable oil and gas service station**—Fritz P. Steinhauer, Chicago, Ill. Filed Aug. 26, 1926. No. 1,764,057.

**Liquid-dispensing apparatus**—Frank B. Eilers, Fort Wayne, Ind., assignor to Tokheim Oil Tank & Pulp Co. Filed Aug. 26, 1926. No. 1,764,097.

**Lubricating Compound**—Walter D. Hodson and Roy E. Coleman, Chicago, Ill., assignors to Hodson Corporation, same place. Filed March 15, 1924. No. 1,764,837.

**Liquid-dispensing pump or the like**—Oliver C. Hufnagle and Wilton F. Reichelderfer, Dayton, Ohio, assignors to Dayton Pump & Mfg. Co., same place. Filed Aug. 12, 1926. No. 1,765,273.

## June 24, 1930

### REFINING

**Process for converting oil**—Gustav Egloff and Harry P. Benner, Chicago, Ill., assignors to Universal Oil Products Co., same place. Filed Sept. 1, 1920. No. 1,765,663.

**Apparatus for distilling oil**—Albert Schwartz, Montclair, N. J. Filed June 16, 1928. No. 1,765,886.

**Process of cracking petroleum oils**—Ralph A. Halloran and Archie L. Strout, Berkeley, Cal., assignors to Universal Oil Products Co., Chicago, Ill. Filed Sept. 4, 1923. No. 1,765,976.

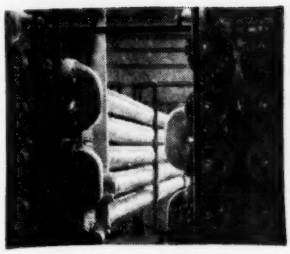
**Process for breaking petroleum emulsions**—Melvin De Groote, St. Louis, and Louis T. Monson, Maplewood, Mo., assignors to Wm. S. Barnickel & Co., Webster Groves, Mo. Filed Jan. 21, 1929. No. 1,766,060.

**Process for breaking petroleum emulsions**—Melvin De Groote, St. Louis, and Bernhard Keiser, Webster Groves, Mo., assignors to Wm. S. Barnickel & Co., Webster Groves. Filed Jan. 21, 1929. No. 1,766,061.

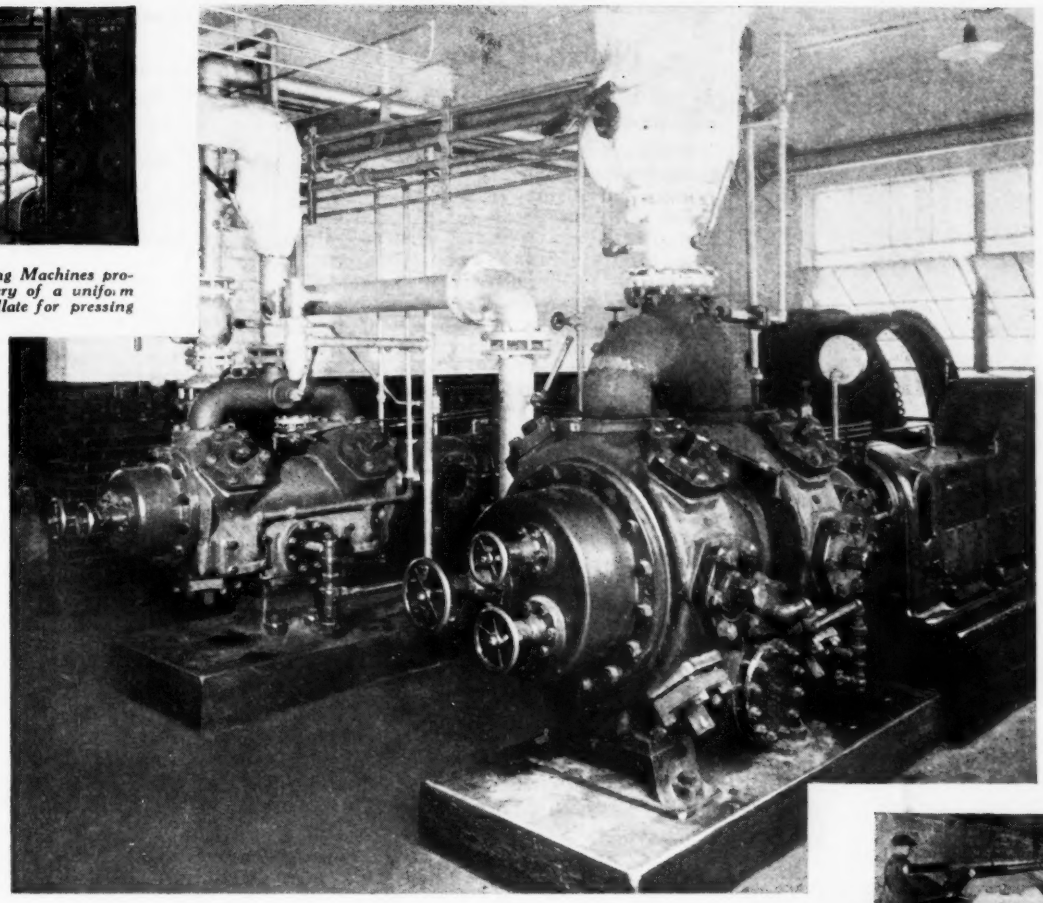
**Process for breaking petroleum emulsions**—Melvin De Groote, St. Louis, and Bernhard Keiser, Webster Groves, Mo., assignors to Wm. S. Barnickel & Co., Webster Groves. Filed Jan. 21, 1929. No. 1,766,062.

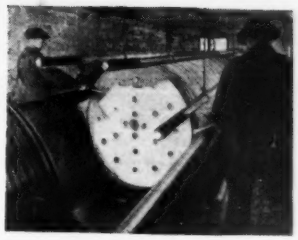
**Process for breaking petroleum emulsions**—Melvin De Groote, St. Louis, and Louis T. Monson, Maplewood, Mo., assignors to Wm. S. Barnickel & Co., Webster Groves, Mo. Filed Jan. 21, 1929. No. 1,766,063.

*(Continued on Page 82)*

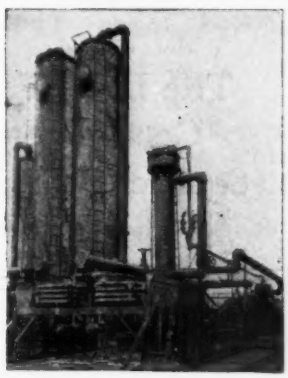


*Carbondale Chilling Machines provide for the delivery of a uniform homogeneous distillate for pressing*





*Carbondale Filter Presses and Filter Press Blankets.*



*Carbondale Heat Exchanger installation.*

# −40°F and *more!*

AS low in temperature as the refiner requests in any desired capacity! Add to this full brine capacity always—that's Carbondale Refrigeration.

Compression Refrigeration or absorption—both Carbondale systems are performance-proved in the services for which they are recommended. That is why so many of America's leading refiners are enjoying the lasting efficiency which is inherent to Carbondale Systems.

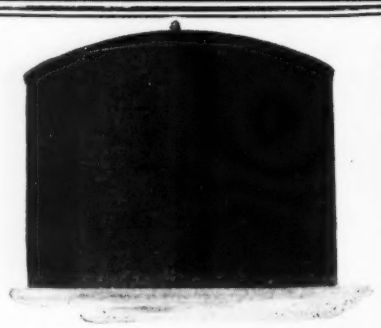
To all who want lower temperatures, better heat transfer or increased capacity, Carbondale offers the services of its staff of refinery engineers. No obligation is involved.

THE CARBONDALE MACHINE CO., CARBONDALE, PA.

***Branches in principal cities***

## Carbondale Refrigeration

CARMACO *for Refiners*



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Bulk Storage

Get our prices on bulk storage units, field erected, 25,000 gallons and up. Flat bottom—no extensive foundations necessary. Units small enough for variety of storage, yet large enough for low cost per barrel of capacity. We also fabricate welded or riveted-up cylindrical tanks.

Chicago Bridge & Iron Works

Cleveland - - - 2206 Union Trust Bldg.
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Philadelphia - - - - 1614 Jefferson Bldg.
Boston - - - 1516 Consolidated Gas Bldg.
Chicago - - - - 2125 Old Colony Bldg.
Detroit - - - - - 1513 Lafayette Bldg.
Birmingham - - - 1531 Fiftieth St., N.
Dallas - - - - - 3339 Magnolia Bldg.
Atlanta - - - 2150 Rhodes-Haverty Bldg.
San Francisco - - - - 1060 Rialto Bldg.
Houston - - - - - 1118 Electric Bldg.
Havana, Cuba - - - - - Apartado 2507

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Gets the Same
Square Deal as the
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Submit Your
Fire Insurance
Problems to Us

NATIONAL
Petroleum Mutual
Fire Insurance Company
437 Chestnut Street
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# New Patents

(*Continued from Page 80*)

**Process for breaking petroleum emulsions**—Melvin De Groote, St. Louis, and Louis T. Monson, Maplewood, Mo., assignors to Wm. S. Barnickel & Co., Webster Groves, Mo. Filed Jan. 21, 1929. No. 1,766,064.

**Process for breaking petroleum emulsions**—Melvin De Groote, St. Louis, and Louis T. Monson, Maplewood, Mo., assignors to Wm. S. Barnickel & Co., Webster Groves, Mo. Filed Jan. 21, 1929. No. 1,766,065.

**Process for breaking petroleum emulsions**—Melvin De Groote, St. Louis, and Arthur F. Wirtel, Webster Groves, Mo., assignors to Wm. S. Barnickel & Co., Webster Groves. Filed Jan. 21, 1929. No. 1,766,066.

**Process for breaking petroleum emulsions**—Melvin De Groote, St. Louis, and Louis T. Monson, Maplewood, and Arthur F. Wirtel, Webster Groves, Mo., assignors to Wm. S. Barnickel & Co., Webster Groves. Filed Jan. 21, 1929. No. 1,766,067.

**Process for breaking petroleum emulsions**—Melvin De Groote, St. Louis, and Louis T. Monson, Maplewood, Mo., assignors to Wm. S. Barnickel & Co., Webster Groves, Mo. Filed Jan. 21, 1929. No. 1,766,112.

## PRODUCTION

**Pumping apparatus**—Ira B. Humphreys, Denver, Colo. Filed Aug. 19, 1924. No. 1,765,427.

**Deep-well pump**—John E. Shutt, Stuttgart, Ark. Filed Sept. 27, 1928. No. 1,765,457.

**Tong-actuating device for well-drilling rigs**—Joseph R. Lucas, Montebello, Cal. Filed Nov. 28, 1924. No. 1,765,492.

**Roller well-drill**—Floyd L. Scott, Houston, Tex., assignor to Hughes Tool Co., same place. Filed June 27, 1927. No. 1,765,545.

**Trip casing spear oil-well rotary fishing-tool**—Percival C. Corey, Los Angeles, Cal. Filed July 19, 1929. No. 1,765,864.

**Deep-well pump**—Charles A. Joy, Denver, Colo. Filed May 7, 1928. No. 1,765,921.

**Sucker-rod guide**—John C. Garrott, Houston, Tex. Filed July 5, 1927. No. 1,766,070.

**Reciprocating core-drill**—Leonard S. Copelin, Compton, Cal. Filed Nov. 29, 1926. No. 1,766,108.

**Deep-well tool**—Clinton A. Langstaff, Hawthorne, Cal. Filed May 27, 1929. No. 1,766,177.

## MISCELLANEOUS

**Floating roof for oil-tanks**—Frederick W. Kueffer, Independence, Mo., assignor to Safety Oil Tank Co., same place. Filed Apr. 16, 1923. No. 1,765,593.

**Motor fuel**—Martin Muller-Conradi, Ludwigshafen-on-the-Rhine, Germany. Filed Oct. 21, 1924. No. 1,765,692.

**Tank and joint for forming same**—Thomas J. Shea, Portland, Oreg. Filed Mar. 29, 1928. No. 1,765,946.

**Tank and roof structure therefor**—Thomas J. Shea, Portland, Oreg. Filed Sept. 4, 1928. No. 1,765,947.

**Display device for dispensing-pumps**—Austin L. Wertz, Lakewood, Ohio. Filed Mar. 20, 1930. No. 1,765,956.

# June 24, 1930

## REFINING

**Absorption process**—Philip T. Sharples, Marion, Pa., assignor to Sharples Specialty Co., Philadelphia, Pa. Filed April 4, 1925. No. 1,766,195.

**Continuous cracking-still**—Walter C. Bailey, Norwalk, Cal. Filed Sept. 20, 1926. No. 1,766,209.

**Process of purifying gasoline.**—Walter S. Baylis, Los Angeles, Cal., assignor to Filtrol Co., same place. Filed May 22, 1926. No. 1,766,211.

**Process of cracking oil**—Jean De-Lattre-Seguy, Chicago, Ill., assignor to Universal Oil Products Co., same place. Filed June 28, 1926. No. 1,766,246.

**Continuous treatment of hydrocarbons with sulphur dioxide**—Guiseppe Cattaneo, Hilversum, Netherlands, and Paul Jodeck, Berlin, Germany. Filed May 10, 1927. No. 1,766,281.

**Process for treating mineral and naphtha oils**—Grigori Petroff, Moscow, Russia. Filed April 23, 1927. No. 1,766,305.

**Process and apparatus for cracking oil**—Gustav Egloff, Chicago, Ill., assignor to Universal Oil Products Co., same place. Filed Dec. 6, 1920. No. 1,766,331.

**Method of refining liquid hydrocarbons**—John Johnston, Jr., Escondido, Cal. Filed March 28, 1923. No. 1,766,338.

**Method of refining hydrocarbons**—John Johnston, Jr., Escondido, Cal. Filed Aug. 11, 1925. No. 1,766,339.

**Apparatus for treating asphaltic oils for the production of asphalt**—Max R. L. Miller, Wilmington, Cal. Filed Jan. 8, 1927. No. 1,766,446.

**Process of and apparatus for the fractional extraction of petroleum hydrocarbons with alcohol**—Theodore A. Kerkenthin, Lima, Ohio, assigner to Solar Refining Co., same place. Filed Dec. 30, 1927. No. 1,766,768.

**Process for the destructive distillation of petroleum oil**—Aubrey D. David, Chicago, Ill., assignor to Universal Oil Products Co., same place. Filed Feb. 14, 1923. No. 1,766,983.

**Apparatus for cracking oil**—Gustav Egloff, Chicago, Ill., assignor to Universal Oil Products Co., same place. Filed May 23, 1921. No. 1,766,986.

**Process of cracking petroleum oil**—Gustav Egloff, Chicago, Ill., assignor to Universal Oil Products Co., same place. Filed Oct. 18, 1923. No. 1,766,987.

**Vapor outlet for stills**—Robert E. Wilson, Chicago, Ill., assignor to Standard Oil Co. of Indiana. Filed May 22, 1924. No. 1,767,196.

## PRODUCTION

**Means for determining the dip of strata**—Charles C. Thompson, Glendale, Cal. Filed Sept. 22, 1924. No. 1,766,202.

**Drill-stem**—John F. Bozeman, West Lake, La., and Jaudon D. Cole, Hebronville, Tex. Filed April 7, 1928. No. 1,766,326.

**Oil-well fishing-tool** — Wilson B. Wigle, Compton, Cal. Filed April 22, 1929. No. 1,766,368.

**Pump**—Julian B. Conner, Humble, Tex. Filed Sept. 7, 1926. No. 1,766,487.

**Well tool and appliance**—Nelson K. Smith, Los Angeles, Cal., assignor to Byron Jackson Co., West Berkeley, Cal. Filed March 24, 1925. No. 1,766,556.

**Rotary swivel**—John H. Swain, Long Beach, and Herbert H. Hastings, Anaheim, Cal. Filed June 23, 1928. No. 1,766,562.

**Rock-drill**—Walter T. Wood, Long Beach, Cal., assignor to Byron Jackson Co., San Francisco, Cal. Filed Nov. 9, 1927. No. 1,766,578.

**Well-packer**—Lawrence E. & Hubert L. Shepard, Los Angeles, Cal. Filed Sept. 7, 1926. No. 1,766,766.

**Well-packer**—Adam J. Eulberg, Sunburst, Mont. Filed May 24, 1928. No. 1,766,887.

# TIRES

# More Oil Companies Selling Them Through Stations

By R. B. Stafford
N. P. N. STAFF WRITER

CLEVELAND, Aug. 2 MORE oil companies are adding tires and tubes to their automobile merchandise. The latest two are the Standard Oil of New Jersey and the Pocahontas Oil Corp. of Cleveland. The latter company has been one of the most progressive service station merchandisers in the country.

It has been only a few months since the White Star Refining Co., Detroit, introduced tires and batteries into its line of merchandise. Only a little more than a year ago the Colonial Beacon Oil Co., subsidiary of the Standard of New Jersey, added tires to its service station lines. Adoption of the plan by the parent company indicates the venture was successful.

The basic idea underlying this diversification of service station merchandise is to give a wider service to automobile drivers. Of course, the fact that larger profits are expected with the enlargement of service station lines is not being overlooked by any of the companies which are undertaking tire selling.

One of the companies which has taken on tires this year estimates that it will add one month's profit to service station earnings after allowing for any increase in service station operating expenses. It is the intention of this company to make tires carry part of the station overhead expense.

Competition of super-service stations owned and operated by tire manufacturing companies, is another factor that has induced many of the smaller oil companies to take on tires. Many of these smaller companies report they are finding tires a profitable side line, although a few have not had such good experience.

Virtually all of the oil companies that are selling tires have found it necessary to meet mail order house and chain store competition. This has not been so difficult to do this year, even though tires are retailing at probably the lowest prices in history. Many tire manufacturers are desirous of outlets such as established oil companies have to offer and are willing to make attractive propositions to the oil companies.

Oil companies follow two general plans for handling tires. One is to sell a standard, nationally advertised brand and the other is to have one's own brand made to specification. The Standard of New Jersey will sell its own brand, the Atlas, introduced in New York state and New England last year by the Colonial Beacon, and handled by its subsidiary, the Atlas Supply Co.

The White Star is selling its own brand, Staroline, named for the company's premium

**How tires are displayed at the stations of the Colonial Beacon Oil Co., subsidiary of the Standard Oil Co. of New Jersey, operating in New England. This company put in tires about a year ago, and on the strength of its experience, it is believed, the Standard of New Jersey plans to take on the sale of tires at its own stations and possibly those of other subsidiary companies**

Announcing
Staroline
TIRES
and
BATTERIES
guaranteed by
WHITE
STAR
Staroline
WHITE STAR REFINING CO.
Your neighborhood White Star station offers you today a new service.
Tires and Batteries!
Both bear a name with outstanding associations—a name whose reputation is this company's most valuable possession. Both are, in every detail, worthy of the name.
Staroline Tires and Staroline Batteries are furnished in only one grade—the highest. Yet they are offered you at prices far below those which you are accustomed to pay for other quality merchandise.
These savings have been created for you by White Star buying power, established distribution through 1350 existing outlets, sweeping economies in storage and delivery, and a large-volume contract with an old-line manufacturer of highest reputation in each field.
Staroline Tires are, in every detail, a first quality product. There are no better standard tires built. Staroline Batteries are equally high quality merchandise.
The guarantee of this company is a part of your purchase. We know these products. Our name is on every one of them. We stand behind them.
Study the prices of Staroline Tires and Batteries. Figure the saving. Make your next tire or battery purchase at the sign of the White Star.
WHITE STAR REFINING COMPANY
Home Folks, providing Superior Gasolines, Motor Oils, Tires and Batteries for the home market
PRICES
STAROLINE TIRES
4 PLY
29 x 4.40 $5.85
29 x 4.50 6.95
30 x 4.50 6.65
28 x 4.75 7.95
28 x 5.25 9.75
30 x 5.50 11.15
6 PLY
30 x 6.00 $13.60
31 x 6.00 13.95
32 x 6.00 14.30
33 x 6.00 15.00
31 x 6.50 16.15
32 x 6.75 17.65
And All Other Standard Sizes at Corresponding Prices
STAROLINE BATTERIES
13 Plate $7.70
15 Plate $9.70
"GUARANTEED BY WHITE STAR"
Staroline
GASOLINE IS BETTER

**How White Star Refining Co., Detroit, introduced its tire and batteries**

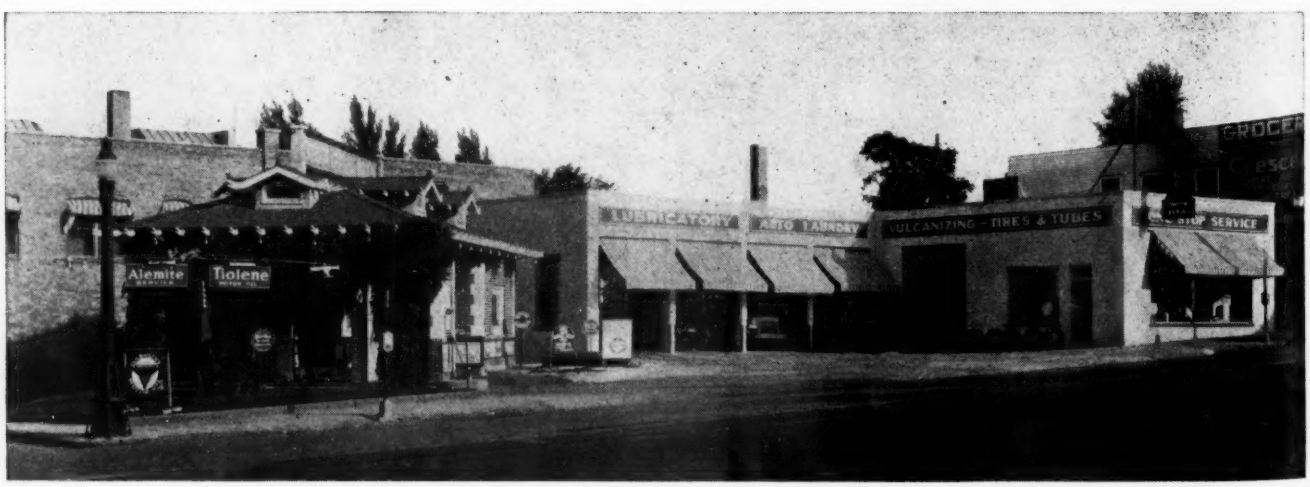
gasoline and motor oils.

Pocahontas is beginning the sale of Pharis tires, made by the Pharis Tire & Rubber Co. of Newark, O. Tri-State Refining Co. of Ashland, Ky., is selling Fisks. C. A. Pierce Oil Co., Akron, O., handles Seiberlings; Allegheny-Arrow Oil Co. at Wooster, O., Firestones, and in the middle west one finds almost every standard brand handled by some oil company. Among successful tire merchandisers in Kansas are the Kent Oil Co. and Lesh Oil Co.

Selling one's own brand involves a considerable initial expense. It is necessary for the oil company to buy tire molds with its name and brand name imprinted and perhaps a special trade design. To cover the widely used sizes of tires adequately, it is necessary for the oil company to buy about $50,000 of molds at the start, according to the estimate of one tire manufacturer. It is therefore more economical for the smaller oil company to handle some manufacturer's brand and preserve the $50,000 for working capital. This sum is sufficient to carry a good working stock of tires and tubes, and obtain maximum discounts from the manufacturer.

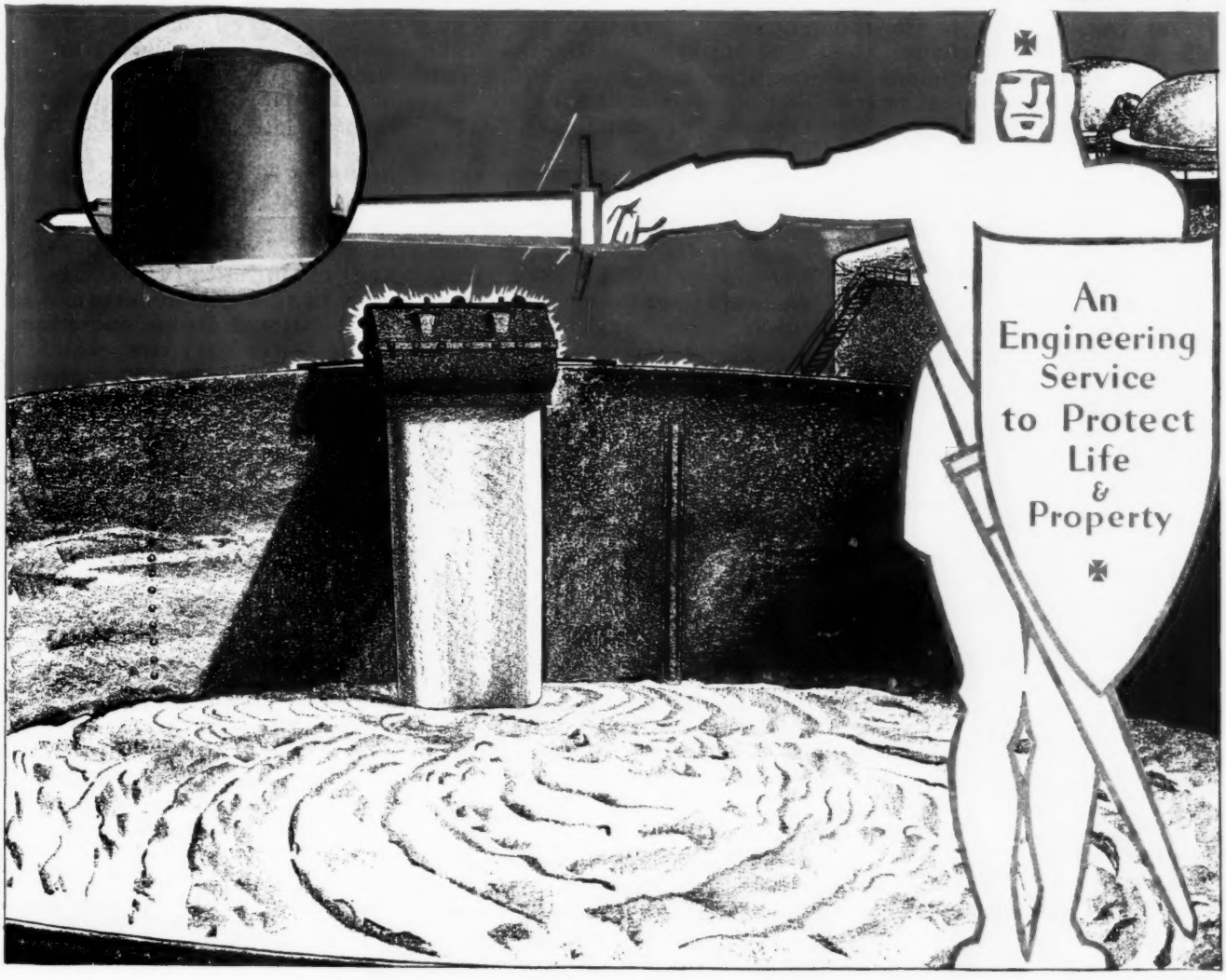
The most lucrative part of the tire replacement business is the commercial trade. However, this branch of tire merchandising involves expensive equipment, outside salesmen, and provisions for heavy duty road service. Its competition consists mainly of factory branches or well established tire dealers. The competition from mail order houses, chain stores, department stores, hardware stores and a multitude of small dealers, is insignificant in the commercial end.

The next year should be an excellent one for the passenger car replacement trade. Fewer




**Window and outdoor tire display of Cumbow-Lanning Oil Co., Sioux Falls, S. D.**

FIRE — AN INCIDENT OR A DISASTER ?




# UNFAILINGLY---- this system guards 90,000,000 barrels of oil

**Ninety million barrels of oil! A huge investment. A rich prize for fire! All of it safe from destruction—for it's guarded by the FOAMITE System.**

**Where the FOAMITE System has been designed, installed and maintained by La France and Foamite Engineers, *it has never failed to extinguish a tank fire.* This System is far more than just a combination of chemicals, hose lines, pipes, and pumps. It is a highly specialized engineering development, coordinating all these factors, balancing all functions, so that when fire breaks out there *can be* no chance of failure.**

**La France and Foamite engineers render a service that includes planning and design of the System, supervision of its installation, rigid periodic inspection of all parts, and frequent analysis of the chemical solutions in storage.**

**The history of oil-fire protection shows that this *complete* service is fully as essential as are the physical factors of a foam system.**

**Our representatives, located near every principal oil producing and refining center, will be glad to survey your hazards and make recommendations, without obligation.**

AMERICAN-LA FRANCE AND FOAMITE CORPORATION, DEPT. E44, ELMIRA, N. Y.

## LA FRANCE AND FOAMITE PROTECTION

*AN ENGINEERING SERVICE*

AGAINST FIRE

***You are cordially invited to visit the La France and Foamite booths, Nos. 95 and 96 in the Texas Building, at the 7th International Petroleum Exposition and Congress, Tulsa, Oct. 4th to 11th.***

new cars have been bought this year than in the last two years so car owners will be in the market for tires, because the original rubber equipment of their cars, bought in last year's banner market, are beginning to wear out. It is likely to a greater extent than before that car owners and not used car dealers, will do the tire re-equipment buying of the next year or so.

In selling tires at oil company service stations it is necessary, some oil company executives believe, to carry a full line of the widely used sizes. Only a few sizes, such as are used on Ford and Chevrolet cars, may be stocked at the service stations. The complete stock may be carried at some central or key station and deliveries made to any service station in the company's chain in a short time.

Colonial Beacon and White Star stations both carry a stock of the widely used sizes. Their stations also have facilities for changing tires. In the White Star stations the tire handling facilities cost about $75. This equipment consists of an electric tube vulcanizing outfit, tire changer, hand spreader, tire irons, pliers, hammers, valve and socket wrenches.

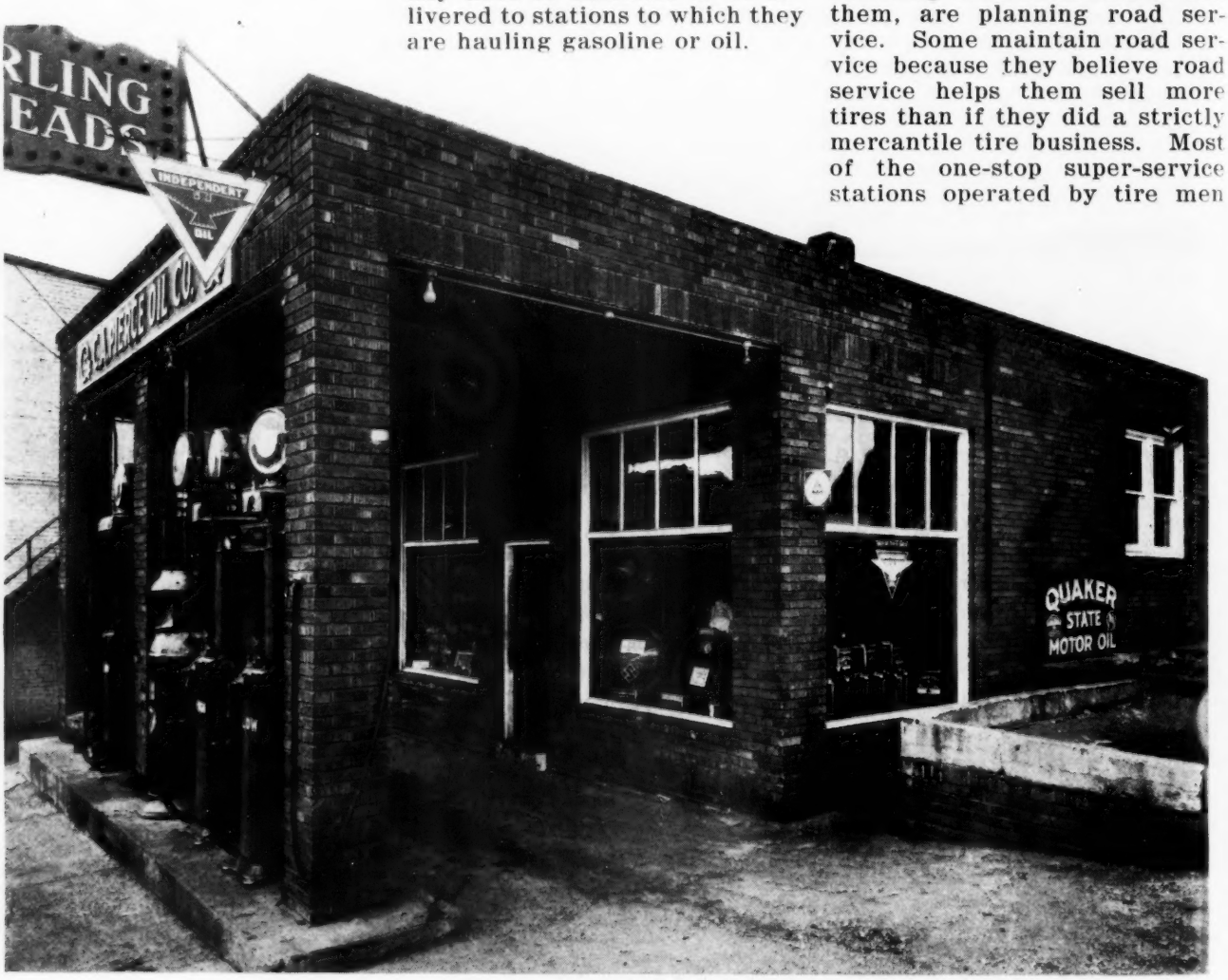
The Colonial Beacon stations have carried around 25 casings. The sizes stocked cover a larger percentage of the possible sales. Other sizes may be acquired quickly from the company's warehouses in each marketing center.

In Detroit, White Star has two trucks employed in its tire and battery division. A large part of its tire deliveries to its stations and to dealer stations are made by its gasoline and oil trucks. After its first delivery each morning, each White Star tank truck stops at the tire and battery warehouse as it leaves the loading rack, to take on any tires or batteries to be delivered to stations to which they are hauling gasoline or oil.

The Pocahontas will stock sufficient sizes at about 10 key stations, of its chain of 78 stations in greater Cleveland, to cover approximately 85 per cent of the market's size requirements. Samples will be carried at the other stations. Pocahontas will carry three grades of Pharis tires. One is known as the standard and competes in quality with the mail order and chain store tires. Some sizes in this tire underprices of competition. Its second grade is the heavy duty tire, which is described as being comparable to the first line original equipment tires on automobiles. The third grade is known as triple service and is extra heavy in cord and rubber content.

Standard tires are given by the oil companies and adjustments are made in line with adjustment allowances of the manufacturer's which are practically uniform.

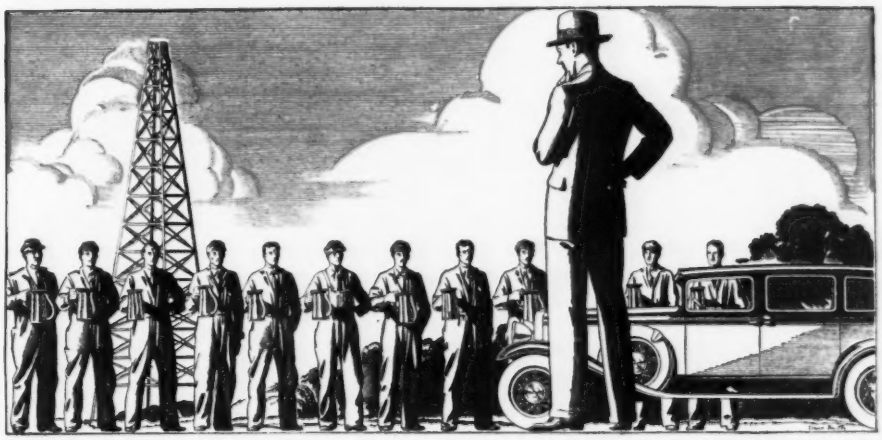
Few oil companies that are handling tires or intend to sell them, are planning road service. Some maintain road service because they believe road service helps them sell more tires than if they did a strictly mercantile tire business. Most of the one-stop super-service stations operated by tire men




**Window tire and tube display of C. A. Pierce Oil Co., Akron, O.**

# No wonder motorists are puzzled!

**A dozen oils of widely different quality can come from the same crude**



ASK motorists about their oil. You'll find that some complain of too much carbon, some mention excessive oil consumption, some say, "The engine is loosening up."

They have been told the oil they use is good because it comes from good crude. Puzzled? Of course, they're puzzled!

The truth is, a dozen oils of widely different quality can come from the same crude.

Real lubricating value depends on the refiner's knowledge and manufacturing skill. The right oil for any engine *must* have, in the *correct proportion*, four vitally important properties:

**Carbon control**—to reduce carbon deposit

**Heat resistance**—to last longer

**Oily character**—to protect moving parts from wear—keep the engine from "loosening up."

**Oxidation control**—to prevent gumming and sticking of valves, and clogging of the oiling system.

The makers of Mobiloil have specialized in *correctly proportioned* lubricants for 64 years. Manufacturing processes are supervised by the most experienced lubrication scientists in the world.

Your customers are getting these facts about lubricating oil every day in our national advertising. You can safely and profitably make Mobiloil service the keystone of your drive for additional complete lubrication business. *Because* there's a *correctly proportioned* Vacuum Oil Company lubricant for every engine and chassis need.

**For Chassis and Gears**

**Mobiloil "C"**—A heavy oil specially made for transmissions and differentials requiring a strictly fluid lubricant. Also recommended for rear axles employing worm gears, and the oil type of universal joint.

**Mobilgrease**—For transmission and differential (not requiring strictly fluid oil), steering gear and high pressure chassis system (if greasing equipment is made to handle viscous grease). High viscosity, very thick, yet creeps readily. *Will not wash out* in any weather. Takes only half as much—lasts twice as long.

**Vocolubricant**—Lighter bodied, for winter use—or summer use in greasing equipment not designed to handle heavier greases. Works in any gun regardless of temperature.

**Voco Wheel Bearing Grease**—For both front and rear wheels. Stiff and fibrous, but free from fillers. Hot brakes can't melt it—no leakage on drums to cause slipping brakes.

**Voco Universal Joint Grease**—Soft and ropy, but made to withstand high pressure. Will not separate or whirl out under high speed centrifugal action.

**Voco Waterproof Grease**—For watertight seal of pump packing glands and efficient bearing lubrication. Resists both hot and cold water—will not wash out.

# Mobiloil

VACUUM OIL COMPANY, New York, Chicago, Philadelphia, Boston, Detroit, Pittsburgh, Cleveland, Minneapolis, Kansas City, Denver. Other branches and distributing warehouses throughout the country.

DISPLAY THIS SIGN

**Pump island tire display of Staebler Oil Co., Ann Arbor, Mich.**

provide road service. Few of the chain stores like Sears Roebuck Co. and Western Auto Supply Co. do.

White Star has arranged with tire dealers, usually White Star gasoline and oil dealers, to handle all major tire repairs. Casings in need of vulcanized repairs may be left at any White Star station or the station of any Staroline tire dealer. The casings are then taken to central points where they are picked up by the repair man's truck and taken to the repair shop. After being fixed the tires are returned to the central points and redistributed. A system similar to this has been used by Colonial Beacon and will be used by Pocahontas. This service requires about 24 hours.

The Patton-Henry Co. of Fairmount, W. Va., operates in the following manner. It has a central super-service station and several community service stations about Fairmount. It maintains a repair department at the central station but tires for repairs may be left at any of the neighborhood stations. The tires are taken to the central station, reconditioned and returned to the neighborhood station.

Opinion varies among tire manufacturers as to whether oil companies make good tire merchants. Firestone has favored the Firestone company controlled dealer or company owned outlet. Firestone now controls through majority ownership between 300 and 400 super-service stations in the United States.

Goodrich is perhaps the second largest owner of company-controlled super-service station outlets. Yet Goodrich, one is told in Akron, looks with favor on oil company distribution for its tires and tubes.

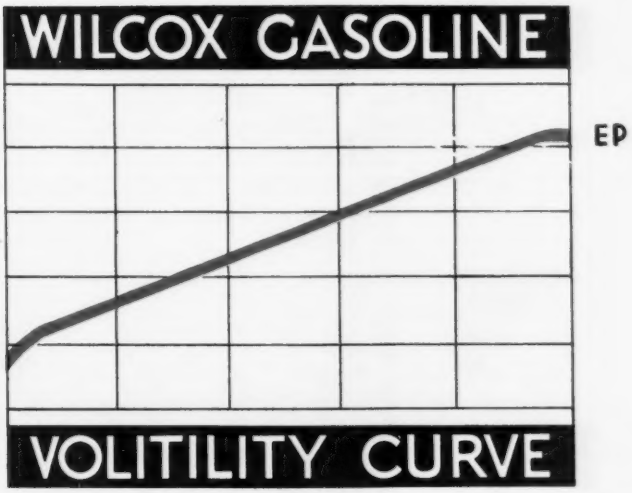
"The oil companies overlooked a wonderful opportunity in not selling tires at its stations earlier," we were told not long ago at Goodrich headquarters in Akron as one reason why Goodrich was building one-stop service stations.

Goodyear, we were told at its headquarters, is for dealer rather than company controlled outlets. There was no reason offered why oil companies should not be the dealers if they should choose to put forth the sales energy sufficient to build as large a market for any of the standard brand tires as the makers of those tires had reason to expect in any market.

Until price schedules were stabilized last fall by the tire manufacturers selling tires was a precarious business in view of the rapid strides made by mail order houses and the chain stores. While the tire industry is not yet "out of the woods" there is more co-operation between manufacturers and dealers than ever before, it is said, and profits for dealers are obtainable today.

There is doubt that joint operation of one-stop stations by tire dealers and oil companies can be successful. Efforts at this have failed.

Division of management has not worked to the best advantage of either the petroleum or the rubber end. Two examples of this have been witnessed in Cleveland. The Standard Oil Co. set aside a tire department in its first super-service station in Ohio. The department was operated by Goodrich. The petroleum business—gasoline, oil and greasing—prospered, but the tire end lagged. Finally the tire department was dismantled and the space used for more




# WILCOX has *Straightened* The Volatility Curve

## Thereby Creating A Scientifically Perfected Gasoline

Research by leading refinery and automotive engineers definitely proved, several years ago, that distillation or "volatility" curves must be *straightened out*, if more efficient and economical gasolines were to be produced.

Wilcox engineers have since been at work on this problem, and have succeeded in attaining, in WILCOX Gasolines, practically *straight* volatility graphs.

Note the reproduction of the volatility curve of one of our gasolines, herewith. There are scientific advantages in the slight steepness of the curve at the start, which secures an exceptionally low initial, and the slight flattening at the finish, to avoid heavy ends—but with these exceptions the distillation graph of this gasoline is a straight line.

This means that from the low initial boiling point, which insures quick starting, to the end point, which has been scientifically determined to secure maximum mileage, the fractions of this gasoline record a smooth, consistent, progressive change in volatility. *The smoothness of this climb—the straightness of the graph—is what secures steady thrust and resulting power in a gasoline's explosion.*

WILCOX Gasolines can be depended on to be uniform, for every shipment receives our famous "double check" before it leaves the refinery. This means that WILCOX Gasolines are checked and checked *again* to insure their absolute adherence to our perfected specifications.

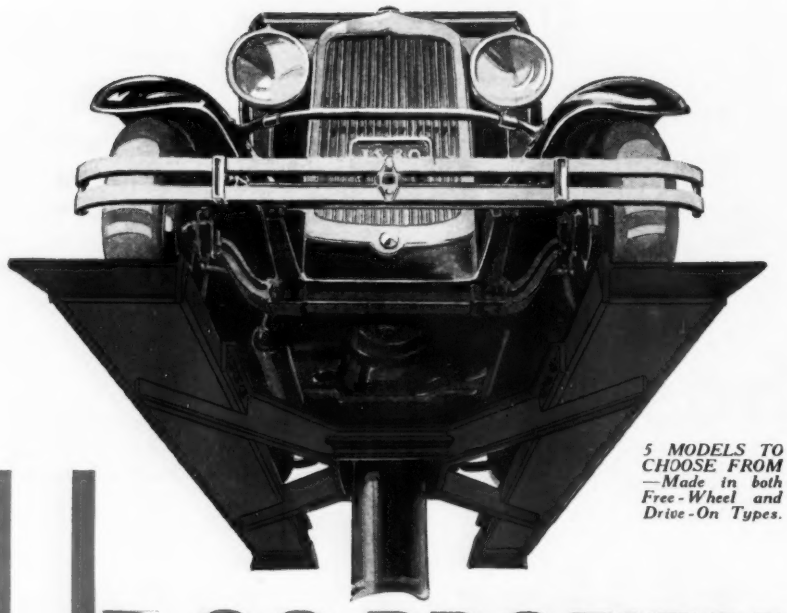
Jobbers will find WILCOX Regular and Anti-Knock Gasolines and WILCOX Motor Oils genuine business builders, for these superior products "deliver the goods" and make satisfied customers. Phone, wire or write for quotations.

**WILCOX OIL & GAS COMPANY**
***PRODUCERS—REFINERS—MARKETERS***
**Tulsa, Okla.**

# WILCOX GASOLINE

**Refined by the discoverer of The famous Wilcox Sand.**

*double checked*



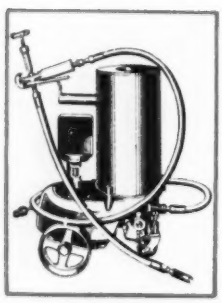
*5 MODELS TO CHOOSE FROM —Made in both Free-Wheel and Drive-On Types.*

# UP GO PROFITS!

"GREASE business doubled in sixty days"—says Ottawa Lift Owner.

Ottawa Lifts increase profits two ways. They permit you to do greasing jobs faster and they make effective signs that stop "passing" cars.

Let us tell you all about the Ottawa Lift and show you why it is the best lift obtainable anywhere. Oil supported, nothing to go wrong or wear out. Write today for full information—also details and prices of the new Ottawa All Electric Grease Gun, a fitting companion to the OTTAWA LIFT.



*OTTAWA ALLELECTRIC GREASE GUN, Model E— a ruggedly built gun, simple in design and operation, with many superior features.*

**OTTAWA MANUFACTURING CO.**

*"Machinery Builders for 30 Years"*

**236 Fuller St.** **Ottawa, Kansas**

# OTTAWA LIFT

A big fleet of *modern* cars;
4 large, privately owned shops to keep them in condition;
18 years' specialized experience;
SPECIAL *services to shippers, described on request. Address*

**NORTH AMERICAN CAR CORPORATION**
**327 S. LaSalle St., Chicago, Ill.**

*Tank Cars for Lease. Domestic and Export Terminals Chicago, Tulsa, New Orleans*


greasing facilities and a specialty oil display room.

Pocahontas several years ago built a large station in one of Cleveland's suburbs. A tire department was put in but operated under separate management. The department may have provided a livelihood for its owner, but it could not be called a shining success. Now Pocahontas will operate the tire department under its own, unified management. The energy and intelligence it has put into its gasoline and oil business should make the tire department a success if these two business building factors are applied to tires with equal fervor.

Pocahontas is doing what oil companies that have not succeeded as tire merchants failed to do: they are hiring a tire man to supervise the tire department. White Star long before it contracted for its tires, had an experienced tire and battery man in the saddle of its allied products division. It took no steps without having a pretty good idea where it was stepping. The project was surveyed from many angles. While it can offer no formula for the way of conducting a tire and battery department, it sought the light by bringing experience into its organization rather than groping in the darkness that enshrouds a new adventure.

Merchandising tires is too far advanced, it seems, to take a chance on the blunders of pioneering. One may feel one's way if he thinks he does not need experience as a directing hand, but this method may be more expensive than paying for experience. The chances of failure are greater.

Merchandising methods and ideas are changing and the addition of tires to its own products at its own service stations indicates what the Standard of New Jersey thinks about changing ideas.

Batteries may be next for a battery business supplements a tire business. The chief tire trade comes in summer and the battery trade in winter. The price situation in each line, though low, seems to promise additional profits if operated on a sound basis.

# THE OIL JOBBER--

## Who was - - 5 Years ago
## Who is - - - - - - -Today
## Who will be- - Tomorrow

*Fourth of a series of discussions or observations of trends and conditions as seen by L. V. NICHOLAS*

**FIVE years ago,** the major oil companies practically confined their sales effort to a single grade of gasoline and belittled the independent oil jobber's claims to superiority for premium grades of high priced brands.

**Today,** almost without exception, major companies are concentrating their efforts in featuring the superiority of their particular brands of premium priced gasoline and some of them are handling more than one premium grade with prices ranging from 2c to as high as 6c or more above their ordinary grade.

**Five years ago,** the independent oil jobber's principal marketing advantage was the fact that this premium grade field was practically non-competitive so far as major companies were concerned.

**Today** millions of dollars are being spent by the major companies in advertising the superior merits of highly specialized premium grade motor fuels and the ordinary grades sold at what may be termed the "base price" are like sugar to the grocery store—to be had for the asking but kept under the counter.

**The invasion of this premium grade field** by the major companies has had a two-fold effect: It stimulated research and refinery technique and convincingly demonstrated to the public mind that the oil industry was alert to meet various quality angles of public demand.

**The outstanding feature** of this change, however, was the breaking away from the commonly accepted, dead level price structure and it, more than any one thing, established a public good will that for years the industry had practically gone without.

**From the independent oil jobber's standpoint,** this change was more important than it at first appeared. The so-called independent oil jobber had, in the public mind, really been considered the nearest approach to a really basic competitive factor and enjoyed recognition and standing as such.

**Today** competition is recognized and accepted as existing throughout the entire industry and is just as keen between the major units as between the Independent oil jobber on one side and the major units on the other.

**Today** a consumer is very largely sold before he buys—(which may be an Irish bull, but states the situation). National advertising, predominant billboard space, radio and other forms of publicity do this and the price of the product after the customer drives up to the pump is rapidly becoming a secondary consideration.

**The independent oil jobber's position** of being publicly accepted as a basic competitive factor has about disappeared. From a national or industrial standpoint he is about as competitive as a corner drug store and the sooner the independent jobber accepts that as being the fact and studies his problem from that angle, the more rap-

FOLLOWING this article will be found letters which have been sent to NATIONAL PETROLEUM NEWS commenting on earlier articles in this series on the oil jobber of tomorrow.

NATIONAL PETROLEUM NEWS repeats what was said in the introduction to the first article. It is presenting Mr. Nicholas' views for the purpose of stimulating discussion on a merchandising problem involving the future of the independent oil marketer.

Insofar as its space allows, it will be glad to publish letters from readers commenting on these articles. Mr. Nicholas, later, will answer some of the points brought up by readers in their letters.

idly he will be able to build back to a permanent place in the industrial scheme of things.

**Successful retail merchandising** largely consists in doing about the same things as your competitor in a more acceptable and pleasing manner. It consists primarily of service well performed.

**Up to date** no major company has solved the problem of putting the ideal personal service and acceptable human touch into situations operated by paid employees, known by numbers, classified according to their weakness and supervised by other employees a grade higher but of the same general character.

**While the major companies** are groping for the answer to this problem in the period for the independent jobber to dig in.

**The Standard Oil Co. of New Jersey** and its affiliated companies announced last week the starting innovation of a great major oil company going into the marketing of tires at all its service station outlets.

**In other words,** it is reaching out for other profitable lines of merchandise to relieve gasoline and lubricating oil from the burden of carrying the entire overhead and presumably to permit the employment of a higher type of sales personnel and to turn inactive, non-productive hours, between peak loads, into active, producing hours with a better distributed load.

**As the marketing overhead** is gradually taken off of gasoline and lubricating oil and spread over other lines, we can look for the sale of petroleum products at retail to become less and less an exclusive merchandising activity and become a merchandise unit in a general line.

**The number of retail gasoline outlets** will undoubtedly be greatly diminished over the period of the next few years but the quality and type of outlets will be greatly improved and the public will benefit by a very much higher type of service.

**The battle for public acceptance** between the major companies is going to be a free-for-all fight in which mere capital will have little or any advantage except its ability to attract to itself the type of men most capable of giving the public what they want, when they want it, the way they want it, **and in anticipating their wants.**

**My suggestion last week** that we study to combine present service in a new way will reduce overhead was written before the public announcement of the Standard Oil Co. of New Jersey but is in line with what that company apparently has been doing and the trend seems to indicate that the independent oil jobber of the future is going to have to be a very active merchandiser of many lines,—if he is to stay in the picture.

(Fourth of a series)

# Letters from Readers on Nicholas Articles

**Dear Editor:**

The article by Mr. L. V. Nicholas, in the NATIONAL PETROLEUM NEWS of July 23rd is very interesting. Articles on such an important subject should, in my opinion, be substantiated by facts, rather than by statements which do not reflect the true situation as to the oil jobber's position in the industry. The type of oil jobber so emphasized in this article, hasn't to my knowledge, existed in the New England States for the past 10 or 15 years, and I question if he exists in any part of the country.

The function of the oil jobber can best be understood by making the proper divisions under which petroleum products are merchandised.

(a) Refiners who maintain wholesale and retail outlets, distributing their own branded products.

(b) Refiners or compounders who prepare brands to be sold under trade names and distribute thru oil jobbers.

(c) Oil jobbers who maintain wholesale and retail outlets and distribute their own brands, also those of refiner (b).

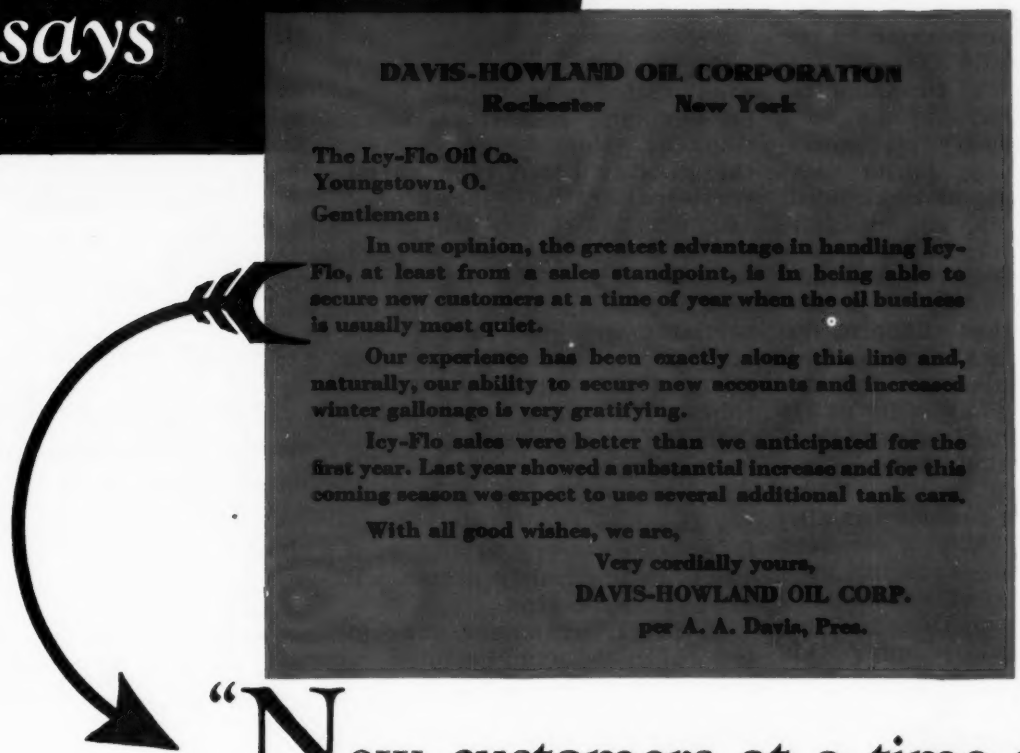
(d) Jobbers who maintain wholesale and retail outlets who under a distributor's franchise handle the exclusive brands of refiner (a).

Other classifications such as brokers, etc. might be added as wholesalers, but the subject at hand more concerns the above mentioned. To get closer to our subject and for proper analysis we will consider gasolines and motor oils the vital factors under discussion. From this point an attempt will be made to answer Mr. Nicholas' article in the same order as written.

1. To try to interpret such a veiled statement is impossible. As written, the uniformed reader might well understand that within the past 18 months the heretofore substantial citizen and successful oil jobber was in reality an outlaw, and as such, was fast being ostracized from the society of respectable business.

2. The outstanding oil jobber (classification c), who has so elected to remain as such, is very much in business today, growing stronger, and the reasons for this are many. Those who have passed out of the picture have sold out to major operators, who, in their wild scramble for established and

# Read what DAVIS HOWLAND OIL CORPORATION says



DAVIS-HOWLAND OIL CORPORATION
Rochester New York

The Icy-Flo Oil Co.
Youngstown, O.

Gentlemen:

In our opinion, the greatest advantage in handling Icy-Flo, at least from a sales standpoint, is in being able to secure new customers at a time of year when the oil business is usually most quiet.

Our experience has been exactly along this line and, naturally, our ability to secure new accounts and increased winter gallonage is very gratifying.

Icy-Flo sales were better than we anticipated for the first year. Last year showed a substantial increase and for this coming season we expect to use several additional tank cars.

With all good wishes, we are,

Very cordially yours,
DAVIS-HOWLAND OIL CORP.
per A. A. Davis, Pres.

## "New customers at a time of year when the oil business is most quiet" . .

AND—there must be a reason! To get and keep customers, you have to have something to offer. Icy-Flo, the winter oil that stays liquid and flows freely even below zero, gives such complete satisfaction that they all come back for more . . . more oil sales mean more gasoline, grease and anti-freeze sales.

When the motorist knows that you handle the oil that insures easy starting in the coldest weather, eliminates repair bills due to extra friction caused by stiff or frozen oil, he'll be your friend and customer all the year 'round.

Write now for further information. Our dealer helps — newspaper advertising, signs, folders and other materials are available. Don't wait!

**ICY-FLO**
*The 30° below zero*
**MOTOR OIL**

**The ICY-FLO OIL Co.**
Youngstown, Ohio

controlled gallonage, have made offers too tempting to be refused.

3. Five years ago today, and tomorrow, the oil jobber will match quality with major companies. He purchases on rigid specifications, rejecting if necessary such products as do not measure up to these standards. He can demand uniformity, and guarantee same to the trade. He sells this quality backed with fundamental facts supported by figures by which quality is measured. How many major company salesmen are allowed, (particularly on motor oils), this information on the products they sell? His company no doubt, deems this not necessary, feeling that the prestige of their name is sufficient. The salesman is placed in the position of selling the quality of his company's name rather than the quality of their goods. Does the consuming public know that the major company is also an oil jobber? That a separate part of his business is the buying and selling of products to other major companies? That purchases made under his brands, are in many instances by name only?

4. Oil jobbers distributing benzol blend gasolines are receiving liberal public acceptance in the premium price gasoline class. Benzol equivalent in terms of anti-knock rating is still the standard by which all gasolines are measured, Ethyl included. The lack of universal distribution of such blends minimizes the tourist's demand, but as a local proposition, it is good. Why not tell the whole story as to why the oil jobber, by necessity, carries or will carry after Oct. 1st, 1930, a major branded Ethyl gasoline. The present policy regarding the compounding of gasoline with Ethyl fluid does not permit the oil jobber the privilege of equality with major operators. Much could be written on this monopolistic arrangement, so why blame the oil jobber for conditions beyond his control?

5. Cut prices on all commodities always have and will prevail. The oil jobber is no more a victim of such enterprise than the major operator. Price reflects on the industry as a whole, not on any individual unit.

6. The oil jobber who in the past five years has not substantially increased output on his private brands deserves to be out of business. The market is there, he has or should have the products, with the right sales policies and the proper salesmen, the answer must be "Success."

7. National advertising is a great factor in promoting popular demand. Few in classification (a) attempt this. By far the greater percentage of advertisers are in classification (b), who are closely allied with the oil jobber (Classification c). At least 80 per cent of the products appearing in magazine advertising are distributed thru oil jobbers. These, with his own particular brand gives the oil jobber a balanced line, which to date, the major operator has not been able to overcome.

8. Do not know what bootleg gasoline and lubricating oil is, so will not try to discuss it. Price as previously stated will always be a factor.

9. Well organized marketing of products branded or otherwise, advertised or not, will continue to have a definite place in any community. Local acceptance on products with proven merits of performance is established. Engineering and scientific research is at the disposal of the oil jobber as well as the major company. Much of the newspaper advertising of gasoline by major companies is so contradictory against each other, that the public may well wonder what it is all about.

10. The reverse of Mr. Nicholas' statement is nearer correct. The battlegrounds drip the sweat of the major operators, each trying by "hook or crook" to outgeneral the other. It is a battle of giants, the objective is gallonage. Service in its broadest sense is better understood by the oil jobber. His policies are individual and flexible, and he renders service on this basis. Service is one of the strongest assets of the oil jobber and he invites comparison.

11. The forces which have combined to help the industry will benefit the oil jobber equal with the major company. He has subscribed too, and will continue to support activities for betterment.

12. The oil jobber is not an illegitimate offspring. Forces disintegrated causing overproduction, wasteful manufacturing, etc. have contributed nothing to his inception. Advantages he may have received are common to all business where the law of supply and demand apply.

13. The oil jobber with a back ground of successful service made possible by public confidence, need have no fear looking into the future.

B. V. Burdge,
Salesmanager,
Walter H. Goodrich & Co., Inc., New Haven, Conn.

## New Stations Building

**Note:** Material used in this column is taken principally from newspapers. NATIONAL PETROLEUM NEWS assumes no responsibility for its accuracy. Headquarters of companies and addresses of individuals are given wherever possible.

The list as published from week to week cannot be looked upon as indicative of the relative extent to which stations are being built in various parts of the country.

### Service Stations

**Litchfield, Minn.**—White Eagle Oil & Refining Co., Federal Reserve Bank Bldg., Kansas City.

**Minneapolis, Minn.**—Phillips Petroleum Co., Phillips Bldg., Bartlesville, Okla.

**Des Moines, Ia.**—Independent Oil & Gas Co., Philtower Bldg., Tulsa.

**Ironton, O.**—Shell Petroleum Corp., St. Louis.

**Minneapolis, Minn.**—Van Tilburg Oil Co., 718 Washington Ave., Minneapolis.

**Minneapolis, Minn.**—B. J. Brieske.

**Minneapolis, Minn.** — Van Tilburg Oil & Supply Co., 718 Washington Ave.

**Aberdeen, S. D.**—White Eagle Oil & Refining Co., 1400 Federal Reserve Bank Bldg., Kansas City.

**Augusta, Kan.**—Mid-Continent Petroleum Corp., Cosden Bldg., Tulsa.

**Topeka, Kan.** — Shell Petroleum Corp., Shell Bldg., St. Louis.

**Ottumwa, Ia.**—Mid-Continent Petroleum Corp., Cosden Bldg., Tulsa.

**Frederick, Okla.**—Magnolia Petroleum Co., Magnolia Bldg., Dallas.

**Cleveland, O.** — The Texas Co., Chrysler Bldg., New York City.

**Dayton, O.**—Federation Realty Co.

**Hamilton, O.** — Shell Petroleum Corp., Shell Bldg., St. Louis.

**Canton, O.**—Sinclair Refining Co., 45 Nassau St., New York City.

**Waterloo, Ia.** — Bartles-Shepherd Oil Co., 1354-1364 Logan Ave.

**Natchez, Miss.** — Shell Petroleum Corp., Shell Bldg., St. Louis.

ADVERTISING PAGES REMOVED

# Crude Production by Fields

*By Telegraph—Daily average gross output, by fields in U. S., for week ending with dates below as compiled by A. P. I.*

## PRODUCTION SUMMARY

| | Aug. 9 | Aug. 2 |
|---|---|---|
| Production east of Rockies | 1,864,250 | 1,908,600 |
| Decrease | | 44,350 |
| Total production in U. S. | 2,480,350 | 2,515,300 |
| Decrease | | 34,950 |
| Crude oil imports | 138,143 | 204,000 |
| Decrease | | 65,857 |
| Total crude supply | 2,618,493 | 2,719,300 |
| Decrease | | 100,807 |

## OKLAHOMA

| | Aug. 9 | Aug. 2 |
|---|---|---|
| Allen Dome | 15,650 | 15,050 |
| Asher | 1,200 | 1,050 |
| Asher, West | 4,100 | 7,100 |
| Blackwell | 3,200 | 3,200 |
| Bowlegs | 14,000 | 13,800 |
| Braman | 3,300 | 3,300 |
| Bristow-Slick | 15,350 | 15,400 |
| Burbank | 15,600 | 15,800 |
| Carr City | 5,000 | 6,300 |
| Cromwell | 7,700 | 7,700 |
| Cushing | 13,400 | 13,400 |
| Davenport | 1,200 | 1,200 |
| Duncan Dist. | 10,100 | 10,050 |
| Earlsboro | 16,200 | 18,950 |
| East Earlsboro | 18,100 | 13,050 |
| Earlsboro So. | 12,850 | 10,100 |
| Fox | 1,250 | 1,250 |
| Garber | 4,300 | 4,300 |
| Graham | 3,300 | 3,300 |
| Healdton | 12,000 | 12,000 |
| Hewitt | 7,100 | 7,150 |
| Hubbard | 1,500 | 1,500 |
| Konawa | 24,000 | 16,650 |
| Little River | 23,050 | 25,950 |
| Little River, E. | 15,150 | 10,300 |
| Logan Co. | 4,750 | 4,500 |
| Maud | 3,050 | 3,150 |
| Mission | 5,450 | 7,250 |
| No. Okmulgee | 10,450 | 10,450 |
| Oklahoma City | 96,850 | 100,400 |
| Osage (Outside Burbank) | 26,000 | 26,000 |
| Papoose | 2,700 | 2,750 |
| Pearson | 650 | 800 |
| Sasakwa | 7,200 | 5,450 |
| St. Louis | 22,900 | 24,150 |
| Scholem-Alechem | 15,000 | 14,200 |
| Searight | 7,450 | 7,900 |
| Seminole | 14,450 | 14,950 |
| Seminole, East | 2,400 | 2,000 |
| So. Okmulgee | 7,200 | 7,200 |
| Thomas | 650 | 650 |
| Tonkawa | 7,000 | 7,050 |
| Wewoka | 3,500 | 3,500 |
| Yale-Jennings | 7,900 | 7,950 |
| Others | 66,500 | 66,500 |
| Total, Oklahoma | 560,750 | 554,650 |
| Increase | | 6,100 |

## KANSAS

| | | |
|---|---|---|
| Augusta-Fox Bush | 2,800 | 2,750 |
| Churchill | 3,800 | 3,800 |
| El Dorado-Towanda | 14,000 | 14,050 |
| Florence-Covert | 750 | 750 |
| Greenwood Co. | 19,000 | 19,000 |
| Oxford | 2,750 | 2,700 |
| Peabody-Ebbing | 2,600 | 2,600 |
| Rainbow Bend | 1,050 | 1,100 |
| Russell | 3,100 | 3,100 |
| Sedgwick Co. | 19,250 | 19,000 |
| Voshell | 11,850 | 10,100 |
| Others | 37,000 | 37,500 |
| Total, Kansas | 117,950 | 116,450 |
| Increase | | 1,500 |

## NORTH LOUISIANA

| | | |
|---|---|---|
| Caddo, light | 9,500 | 9,550 |
| Caddo, heavy | 2,550 | 2,600 |
| Cotton Valley | 2,000 | 2,050 |
| De Soto and Red River | 3,100 | 3,100 |
| Haynesville | 4,800 | 4,600 |
| Holly | 1,100 | 1,050 |
| Homer | 3,500 | 3,550 |
| Sarepta Carterville | 3,800 | 3,100 |
| Urania | 5,200 | 5,200 |
| Zwolle | 5,400 | 5,250 |
| Others | 1,700 | 1,600 |
| Total, No. La. | 42,650 | 41,650 |
| Increase | | 1,000 |

## ARKANSAS

| | | |
|---|---|---|
| Champagnolle | 4,750 | 4,400 |
| El Dorado | 4,200 | 4,100 |
| Lisbon | 950 | 950 |
| Nevada | 1,000 | 1,050 |
| Smackover, light | 5,100 | 5,100 |
| Smackover, heavy | 37,300 | 37,300 |
| Stephens | 950 | 900 |
| Others | 1,250 | 1,250 |
| Total, Ark. | 55,500 | 55,050 |
| Increase | | 450 |

## ROCKY MOUNTAIN

### Wyoming

| | | |
|---|---|---|
| Big Muddy | 1,700 | 1,750 |
| Elk Basin | 900 | 800 |
| Grass Creek | 2,000 | 2,100 |
| Labarge | 1,750 | 2,250 |
| Lance Creek | 150 | 150 |
| Lost Soldier | 1,050 | 1,050 |
| Oregon Basin | 2,900 | 2,900 |
| Rock River | 2,100 | 2,150 |
| Salt Creek | 29,600 | 30,050 |
| Others | 4,200 | 4,500 |
| Total, Wyo. | 46,350 | 47,700 |
| Decrease | | 1,350 |

### Montana

| | | |
|---|---|---|
| Cat Creek | 1,150 | 1,150 |
| Pondera | 2,100 | 2,400 |
| Sunburst | 5,850 | 5,850 |
| Others | 50 | 50 |
| Total, Mont. | 9,150 | 9,450 |
| Decrease | | 300 |

### Colorado

| | | |
|---|---|---|
| Florence | 450 | 600 |
| Fort Collins | 1,250 | 1,200 |
| Moffat (Craig) | 1,150 | 1,250 |
| Others | 1,550 | 1,660 |
| Total, Colo. | 4,400 | 4,650 |
| Decrease | | 250 |

### New Mexico

| | | |
|---|---|---|
| Artesia | 750 | 700 |
| Hobbs High | 34,250 | 33,250 |
| Bal. Lea Co. | 6,500 | 7,000 |
| Hogback | 450 | 450 |
| Rattlesnake | 1,300 | 1,400 |
| Table Mesa | 100 | 100 |
| Others | 100 | 100 |
| Total, N. M. | 43,450 | 43,000 |
| Increase | | 450 |
| Total, Rocky Mountain | 103,350 | 104,800 |
| Decrease | | 1,450 |

## TEXAS (OUTSIDE GULF COAST)

### Panhandle District

| | Aug. 9 | Aug. 2 |
|---|---|---|
| Carson Co. | 9,300 | 8,700 |
| Gray Co. | 66,950 | 65,250 |
| Hutchinson Co. | 20,500 | 21,400 |
| Wheeler Co. | 500 | 750 |
| Others | 400 | 300 |
| Total, Panhandle Tex. | 97,650 | 96,400 |
| Increase | | 1,250 |

### North Texas

| | | |
|---|---|---|
| Archer Co. | 16,050 | 16,150 |
| Burkburnett | 6,250 | 6,300 |
| Electra | 12,600 | 12,600 |
| Iowa Park and K. M. A. | 5,600 | 5,650 |
| Montague-Cooke | 9,700 | 9,750 |
| Wilbarger | 21,000 | 22,050 |
| Others | 1,700 | 1,700 |
| Total, North Texas | 72,900 | 74,200 |
| Decrease | | 1,300 |

### West Central Texas

| | | |
|---|---|---|
| Brown Co. | 6,100 | 6,400 |
| Callahan Co. | 3,300 | 3,600 |
| Coleman Co. | 3,000 | 3,500 |
| Eastland-Desdemona | 5,500 | 5,600 |
| Jack County | 2,400 | 2,150 |
| Palo Pinto Co. | 500 | 500 |
| Shackleford Co. | 7,100 | 7,150 |
| Stephens Co. | 5,600 | 5,550 |
| Throckmorton Co. | 800 | 1,000 |
| Young Co. | 18,050 | 18,950 |
| Others | 1,100 | 1,000 |
| Total, West Cent. Texas | 53,450 | 55,400 |
| Decrease | | 1,950 |

### West Texas

| | | |
|---|---|---|
| Crane and Upton Counties | 39,400 | 38,800 |
| Crockett Co. | 2,300 | 2,250 |
| Ector Co. | 10,200 | 17,800 |
| Howard Co. | 23,550 | 27,500 |
| Jones Co. | 1,350 | 1,250 |
| Mitchell and Scurry Co.'s | 2,150 | 2,200 |
| Reagan Co. | 21,600 | 20,950 |
| Winkler Co. | 79,100 | 78,500 |
| Yates | 103,000 | 103,900 |
| Balance Pecos Co. | 3,400 | 3,400 |
| Others | 4,650 | 4,500 |
| Total, West Texas | 290,700 | 301,050 |
| Decrease | | 10,350 |

### East Central Texas

| | | |
|---|---|---|
| Boggy Creek | 2,900 | 3,100 |
| Corsicana-Powell | 5,650 | 5,700 |
| Currie | 300 | 350 |
| Mexia | 4,350 | 4,450 |
| Nigger Creek | 200 | 200 |
| Richland | 200 | 250 |
| Van Zandt | 24,900 | 26,200 |
| Wortham | 900 | 900 |
| Total, East Cent. Texas | 39,400 | 41,150 |
| Decrease | | 1,750 |

### Southwest Texas

| | | |
|---|---|---|
| Dale | 300 | 300 |
| Darst Creek | 45,000 | 77,800 |
| Laredo Dist. | 13,700 | 13,200 |
| Luling | 9,900 | 9,850 |
| Lytton Springs | 900 | 850 |
| Salt Flat | 17,300 | 20,200 |
| Somerset | 1,600 | 1,600 |
| Others | 650 | 700 |
| Total, Southwest Texas | 89,350 | 124,500 |
| Decrease | | 35,150 |
| Total, Texas (Outside Gulf Coast) | 643,450 | 692,700 |
| Decrease | | 49,250 |

## GULF COAST

### Coastal Texas

| | | |
|---|---|---|
| Barbers Hill | 17,900 | 18,600 |
| Batson | 1,200 | 1,200 |
| Big Creek | 4,100 | 4,150 |
| Blue Ridge | 1,600 | 1,600 |
| Boling | 1,100 | 1,150 |
| Damon Mound | 700 | 700 |
| Esperson | 2,400 | 2,300 |
| Fannett | 900 | 900 |
| Goose Creek | 4,700 | 4,700 |
| Hankamar | 2,800 | 2,400 |
| Hull | 8,350 | 8,200 |
| Humble | 19,100 | 19,500 |
| North Dayton | 900 | 1,800 |
| Orchard | 1,800 | 2,000 |
| Orange Co. | 2,100 | 2,100 |
| Pettus | 6,400 | 6,200 |
| Pierce Junction | 11,800 | 12,100 |
| Port Neches | 2,150 | 2,200 |
| Raccoon Bend | 11,900 | 12,000 |
| Refugio Co. | 30,650 | 31,600 |
| Saratoga | 1,000 | 1,000 |
| Somerville | 1,450 | 1,500 |
| Sour Lake | 2,200 | 2,200 |
| South Liberty | 3,700 | 3,800 |
| Spindletop | 16,500 | 16,600 |
| Sugarland | 11,850 | 12,000 |
| West Columbia | 4,700 | 5,450 |
| Others | 2,400 | 2,300 |
| Total, Coastal Texas | 176,400 | 180,250 |
| Decrease | | 3,850 |

### Coastal Louisiana

| | | |
|---|---|---|
| E. Hackberry | 4,550 | 2,150 |
| Old Hackberry | 1,200 | 1,150 |
| Edgerly | 400 | 550 |
| Evangeline | 2,100 | 2,200 |
| Lake Barre | 1,300 | 1,300 |
| Lockport | 2,850 | 2,950 |
| Port Barre | 3,700 | 4,200 |
| Sulphur Dome | 3,600 | 3,800 |
| Vinton | 7,000 | 6,700 |
| Others | 5,450 | 2,950 |
| Total, Coastal Louisiana | 32,150 | 27,950 |
| Increase | | 4,200 |
| Total, Gulf Coast | 208,550 | 208,200 |
| Increase | | 350 |

## CALIFORNIA

| | | |
|---|---|---|
| Dominguez | 10,000 | 10,000 |
| Elwood-Goleta | 48,900 | 41,500 |
| Huntington Beach | 28,700 | 28,300 |
| Inglewood | 17,400 | 17,200 |
| Kettleman Hills | 13,000 | 13,300 |
| Long Beach | 102,000 | 101,400 |
| Midway-Sunset | 63,000 | 63,000 |
| Santa Fe Springs | 109,800 | 110,000 |
| Seal Beach | 20,300 | 21,000 |
| Ventura Ave. | 48,000 | 48,000 |
| Others | 155,000 | 153,000 |
| Total, Calif. | 616,100 | 606,700 |
| Increase | | 9,400 |

## EASTERN

| | | |
|---|---|---|
| (Not including Michigan) | 122,000 | 124,500 |
| Decrease | | 2,500 |

## MICHIGAN

| | | |
|---|---|---|
| Mt. Pleasant | 6,900 | 7,550 |
| Muskegon | 2,900 | 2,800 |
| Saginaw | 250 | 250 |
| Total, Mich. | 10,050 | 10,600 |
| Decrease | | 550 |

# Compilation Of Mid-Continent Refinery Operations

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## Mid-Continent Refinery Operations, Week Ended August 8 (By Telegraph)

| | Kansas | Oklahoma | North & Cent. Texas | West Texas | North La.-Ark. | Total Week Ended Aug. 8 |
|---|---|---|---|---|---|---|
| Plants Reporting | 12 | 29 | 25 | 15 | 12 | 93 |
| Da. Av. Cap. (Bbls.) | 94,500 | 161,700 | 106,100 | 82,000 | 77,000 | 521,300 |
| Da. Cracking Capacity | 20,700 | 52,100 | 17,200 | 5,000 | 22,700 | 128,200 |
| Da. Av. Crude Runs | 58,443 + 6.6 | 108,030 + 0.03 | 62,737 — 13.9 | 34,853 — 12.6 | 40,231 + 25.5 | 304,294 — 1.1 |
| Da. Av. Other Oils | 8,336 + 12.9 | 3,550 — 56.2 | 1,203 — 67.4 | 4,466 + 13.6 | 17,290 — 11.0 | 34,845 — 18.1 |
| **GASOLINE—Gallons** | | | | | | |
| Stocks, Aug. 1 | 18,332,000 | 58,814,000 | 24,114,000 | 13,251,000 | 13,360,000 | 127,871,000 |
| Prod. 8-1 to 8-8 | 10,526,000 + 4.8 | 18,620,000 — 1.4 | 9,029,000 — 14.6 | 4,299,000 — 9.0 | 5,517,000 — 4.3 | 47,991,000 — 4.0 |
| Ship. 8-1 to 8-8 | 13,110,000 + 4.3 | 20,802,000 — 1.4 | 7,819,000 — 21.2 | 4,687,000 + 5.0 | 5,683,000 — 1.4 | 52,101,000 — 5.7 |
| Stocks, Aug. 8 | 15,748,000 — 14.1 | 56,632,000 — 3.7 | 25,324,000 + 5.0 | 12,863,000 — 2.9 | 13,194,000 — 1.3 | 123,761,000 — 3.2 |
| Ratio Sales to Prod. | 124.5% | 111.7% | 86.6% | 109.0% | 103.0% | 108.6% |
| **KEROSENE—Gallons** | | | | | | |
| Stocks, Aug. 1 | 8,306,000 | 8,517,000 | 2,466,000 | 4,000 | 1,341,000 | 20,634,000 |
| Prod. 8-1 to 8-8 | 1,776,000 + 3.7 | 2,096,000 — 4.2 | 1,205,000 — 15.0 | 47,000 | 429,000 + 15.9 | 5,553,000 — 3.2 |
| Ship. 8-1 to 8-8 | 1,786,000 — 30.1 | 2,128,000 — 9.8 | 1,305,000 — 17.2 | 47,000 | 474,000 + 4.4 | 5,740,000 — 17.9 |
| Stocks, Aug. 8 | 8,296,000 — 0.1 | 8,485,000 — 0.4 | 2,366,000 — 4.1 | 4,000 | 1,296,000 — 3.4 | 20,447,000 — 0.9 |
| Ratio Sales to Prod. | 100.6% | 101.5% | 108.2% | 100.0% | 110.5% | 103.4% |
| **STOVE DISTILLATE—Gallons** | | | | | | |
| Stocks, Aug. 1 | 4,543,000 | 3,519,000 | 682,000 | 215,000 | 734,000 | 9,693,000 |
| Prod. 8-1 to 8-8 | 315,000 + 49.2 | 591,000 + 22.6 | 321,000 + 32.6 | 167,000 + 34.6 | 38,000 —137.5 | 1,432,000 + 33.2 |
| Ship. 8-1 to 8-8 | 352,000 + 34.3 | 844,000 + 48.3 | 198,000 +135.7 | 208,000 + 79.0 | 38,000 —137.5 | 1,640,000 + 56.6 |
| Stocks, Aug. 8 | 4,557,000 + 0.3 | 3,353,000 — 4.7 | 647,000 — 5.1 | 166,000 — 22.8 | 734,000 | 9,457,000 — 2.4 |
| Ratio Sales to Prod. | 111.7% | 142.8% | 61.7% | 124.5% | 100.0% | 114.5% |
| **GAS OIL—Gallons** | | | | | | |
| Stocks, Aug. 1 | 6,422,000 | 44,610,000 | 4,127,000 | 4,017,000 | 4,828,000 | 64,004,000 |
| Prod. 8-1 to 8-8 | 898,000 — 4.4 | 342,000 — 85.7 | 1,153,000 + 76.2 | 949,000 + 65.6 | 2,017,000 — 15.4 | 5,359,000 — 22.8 |
| Ship. 8-1 to 8-8 | 1,721,000 +126.4 | 325,000 — 87.2 | 658,000 — 16.3 | 1,405,000 +295.8 | 1,860,000 — 27.1 | 5,969,000 — 14.7 |
| Stocks, Aug. 8 | 5,599,000 — 12.8 | 44,627,000 + 0.04 | 4,622,000 + 12.0 | 3,561,000 — 11.4 | 4,985,000 + 3.3 | 63,394,000 — 1.0 |
| Ratio Sales to Prod. | 191.6% | 95.0% | 57.1% | 148.0% | 92.2% | 110.4% |
| **FUEL OIL—Gallons** | | | | | | |
| Stocks, Aug. 1 | 31,969,000 | 49,607,000 | 72,800,000 | 22,706,000 | 23,740,000 | 200,822,000 |
| Prod. 8-1 to 8-8 | 4,854,000 — 7.9 | 6,972,000 + 17.2 | 6,704,000 — 23.7 | 4,244,000 — 20.0 | 4,210,000 — 14.1 | 26,984,000 — 8.3 |
| Ship. 8-1 to 8-8 | 3,153,000 — 19.2 | 6,220,000 + 39.4 | 8,680,000 — 5.8 | 6,403,000 + 7.0 | 6,597,000 + 20.9 | 31,053,000 + 7.0 |
| Stocks, Aug. 8 | 33,670,000 + 5.3 | 50,359,000 + 1.5 | 70,824,000 — 2.7 | 20,547,000 — 9.5 | 21,353,000 — 21.0 | 196,753,000 — 2.0 |
| Ratio Sales to Prod. | 65.0% | 89.2% | 129.4% | 150.8% | 156.6% | 115.1% |

## Gasoline Produced by Various Methods, Week Ended August 8

| | Kansas | % of Total | Oklahoma | % of Total | North & Cent. Texas | % of Total | West Texas | % of Total | Louisiana-Arkansas | % of Total | Total | % of Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Straight Run | 6,185,000 | 58.7 | 11,956,000 | 64.2 | 5,634,000 | 62.4 | 3,009,000 | 70.0 | 1,363,000 | 24.7 | 28,147,000 | 58.6 |
| Cracked | 3,876,000 | 36.8 | 5,150,000 | 27.6 | 1,812,000 | 20.1 | 384,000 | 8.9 | 3,023,000 | 54.7 | 14,345,000 | 29.9 |
| Natural | 465,000 | 4.5 | 1,514,000 | 8.2 | 1,583,000 | 17.5 | 906,000 | 21.1 | 1,131,000 | 20.6 | 5,599,000 | 11.5 |
| Total | 10,526,000 | | 18,620,000 | | 9,029,000 | | 4,299,000 | | 5,517,000 | | 47,991,000 | |

+ or — columns are % changed over previous week.

# Stocks of All Mid-Continent Refined Oils Cut

Staff Special—By Telegraph

TULSA, August 11

GASOLINE stocks were reduced 4,100,000 gallons in the first week of August at plants reporting weekly to this publication. The reduction in inventories was made in the face of a drop of 3,100,000 gallons in shipments as compared with the final week of July.

Because of the lessened demand refiners reduced their charges to stills of both crude and partly refined oils. Crude runs were cut 3200 barrels daily average and throughput of other oils dropped 18.1 per cent. As a result the output of finished motor fuel was reduced 2,000,000 gallons.

Shipments of kerosene also dropped during the week. The demand was lower by 1,200,000 gallons. But refiners were able to draw 200,000 gallons from storage when output was cut a similar amount. Stove distillate stocks also were reduced.

## Summary for the Month

Production and shipments, all reporting refineries, for four weeks ended Aug 8. Change in stocks figures from July 11.

**GASOLINE**

| | Gallons |
|---|---|
| Production | 199,735,000 |
| Shipments | 216,429,000 |
| Net change in stocks | —16,685,000 |
| Ratio sales to production | 114.4% |

**KEROSENE**

| | |
|---|---|
| Production | 24,081,000 |
| Shipments | 28,814,000 |
| Net change in stocks | —4,733,000 |
| Ratio sales to production | 119.6% |

**STOVE DISTILLATE**

| | |
|---|---|
| Production | 5,327,000 |
| Shipments | 4,544,000 |
| Net change in stocks | +783,000 |
| Ratio sales to production | 85.3% |

**GAS OIL**

| | |
|---|---|
| Production | 18,488,000 |
| Shipments | 21,827,000 |
| Net change in stocks | —3,339,000 |
| Ratio sales to production | 118.1% |

**FUEL OIL**

| | |
|---|---|
| Production | 117,431,000 |
| Shipments | 121,222,000 |
| Net change in stocks | —3,791,000 |
| Ratio sales to production | 103.2% |

Stocks of heavy oils were reduced slightly. Gas oil stocks were down 600,000 gallons on August 8 and fuel oil stocks were reduced 4,000,000 gallons. Fuel oil shipments increased 2,000,000 gallons or 7 per cent over the last week of July.

## Motor Transport Group To Meet at Tulsa

TULSA, Aug. 9.—The central automotive transportation group of the American Petroleum Institute has been called to meet at Tulsa on Sept. 1, 2 and 3. Meetings will be held at the Mayo hotel. A program of recreation is planned for Labor Day.

A number of men of national importance will be at the meeting to present papers on problems of interest to the transportation men. R. F. Fike of the Mid-Continent Petroleum Corp., chairman of the group, asks those desiring rooms at the Mayo to notify him.

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### Publishes Touring Data on Ohio

CLEVELAND.—"Pictorial Ohio" is now available at all Standard Oil of Ohio stations and also to those who write the company for a copy. It is a 48-page booklet prepared by the company in collaboration with the Ohio State Archaeological and Historical Society and the state department of education. A road map is attached to the inside back cover.

The company's statement says the booklet is published in the hope it may foster increased interest in Ohio's romantic history and beautiful scenery, and that it may stimulate the desire of Ohioans to know and see more of their home state.

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### A. P. I. Directors to Meet

CLEVELAND, Aug. 11.—Directors of the American Petroleum Institute and general committees of the three divisions will meet at Tulsa Oct. 2 and 3 at the Mayo hotel prior to the opening of the International Petroleum Exposition.

The general committee of the production division will meet on the morning of Oct. 2 and the marketing committee will meet that afternoon. On the third the refining committee will meet in the morning and the board of directors in the afternoon.

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### Buck Heads South Carolina Code

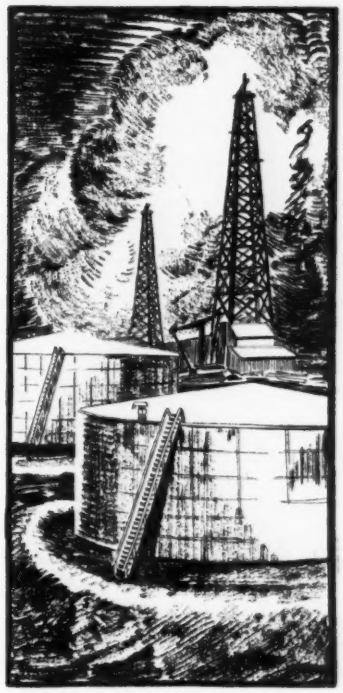
CLEVELAND, Aug. 11.—A. F. Buck of the Sinclair Refining Co., Atlanta, Ga., has been made chairman of the South Carolina code of ethics committee. The present committee of seven may be enlarged.

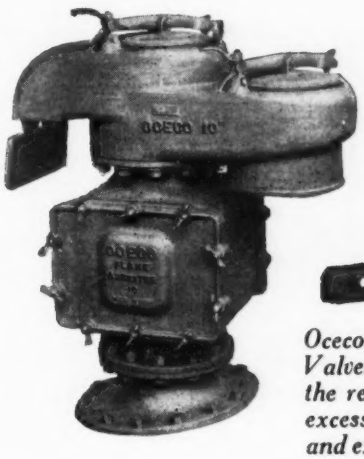

# OCECO PROMISES
## *Always* CONSERVATIVE
## *Are Always* EXCEEDED

ON every continent of the globe, OCECO Fittings are making good. Wherever oil is stored, OCECO equipment is doing far more than was claimed for it.

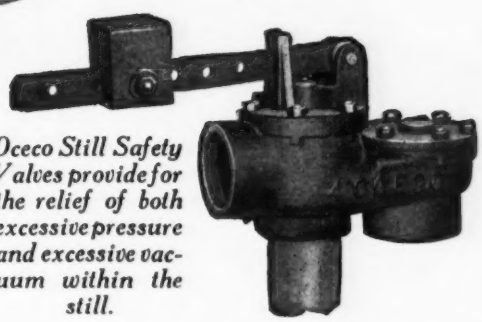
Minimizing fire hazard, reducing evaporation losses, cutting insurance costs—these economies are effected when tanks are Oceco-equipped.

The result is gratifying—within a short time OCECO equipment has saved its cost. And thereafter it pays dividends year after year!





*The Oceco Type B Vent Unit consists of double flange vent collar, flame arrestor, conservation vent valve, and flame snuffer.*



*Oceco Still Safety Valves provide for the relief of both excessive pressure and excessive vacuum within the still.*

## THE OIL CONSERVATION ENGINEERING COMPANY

877 Addison Road Cleveland, Ohio

*Engineering and Sales Service:*

90 West Street, New York

Box 552, Beaumont, Texas Tulsa Trust Bldg., Tulsa, Okla.

OCECO

# The kind of *Service* that brings them back! . . . Sinclair Three-Gas Service

**Sell Sinclair Three-Gas Service. Offer motorists three different fuels to select from. If they want the *Ace* of high test gasolines—one that gives quick starting, flashy pickup and brilliant performance—recommend Sinclair *Aircraft* Gasoline! Sinclair Aircraft is the Ace of high test gasolines because it is specially manufactured at Sinclair Refineries, meeting the requirements of the Federal Specifications Board for Aviation Gasoline—domestic grade—and gives sustained power. Due to its careful fractionation it is free from dissolved gases which cause gas locks, uneven distribution, galloping and engine balk.**

**Or—if they want high compression performance that stops knocks—there's Sinclair *H-C* Gasoline. It's all gasoline, nothing added.**

**And—if they prefer to pay three cents less per gallon—there's Sinclair *Regular* Gasoline—full of eager power—*great* for *economy* and *mileage*. The quality gasoline at a popular price!**

**A motorist doesn't have to "take" just one gasoline when he drives in for Sinclair "Three-Gas" Service . . . He can choose it to fit his own engine and his own preference.**

**When a motorist gets Sinclair Three-Gas Service he gets the kind of service that brings him back and makes him a regular customer.**

**SINCLAIR REFINING COMPANY, INC.**
**45 Nassau Street, New York**

***Atlanta*** ***Chicago*** ***Houston*** ***Kansas City***

# Refinery - Tank Wagon Markets

## Gasoline Prices Slip to Lower Levels In All U. S. Markets

CLEVELAND, Aug. 12

REFINED oil markets throughout the country showed a tendency to drift toward lower levels last week. Gasoline prices were under pressure in spite of the fact that the consuming season now is at its height with the caravan of motor tourists in full swing across the highways.

In the middle west cut prices at retail stations in Standard Oil Co. of Indiana's territory have given rise to rumors of a reduction in the tank-wagon schedule. While there has been no general cut, the Indiana company last week revised its quantity discount schedule throughout the territory to "meet competition."

Central states refiners continued to offer gasoline at prices 0.125 to 0.25 cent per gallon below Group 3 competition for delivery in Illinois, Indiana and Michigan.

Domestic gasoline business on the Atlantic coast generally was transacted at cut prices the past week.

Independent refiners are quoting gasoline for export at prices below those quoted by members of the Export Petroleum Association. Apparently European buyers expect a reduction in the posted price of the association and hence have been holding back on orders. Some buyers have been obtaining stabilized natural gasoline in this country to blend up less volatile products obtained in the Black Sea district.

On the Pacific coast refiners have been receiving large inquiries for cased gasoline for the Orient. Most of the inquiries have been more to feel out the market than as a basis for actual buying it is believed.

Natural gasolines in the Mid-Continent continued to advance during the past week, several large companies buying actively.

Lubricating oil prices in the Mid-Continent, both neutrals and bright stocks, were reduced during the week to a level more nearly in line with competition from other districts.

In Pennsylvania the lubricating oil markets were in better condition with prices steady. A number of manufacturers of steam refined stocks were forced to withdraw from the market until they can catch up with orders.

Wax markets improved in all trading centers. Crude scale prices advanced 0.125 cent per pound as buyers became more active.

Fuel oil continued scarce in Pennsylvania. In the Mid-Continent the demand for fuels was only fair.

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## Tank Wagon Cut Rumored as Gasolines Sag

Staff Special

CHICAGO, Aug. 9.

DESPITE a fairly active movement of spot gasoline and a continued excellent contract business, gasoline tank car prices moved downward last week both in the Central States refinery territory and on Oklahoma and North Texas material. The low of the U. S. Motor gasoline price range, as shown in Platt's Oilgram, was down 0.125 cent.

Persistent rumors of a reduction in tank wagon gasoline prices continued to be heard last week and these were further intensified by the revision of the Quantity Discount Agreement by the Standard of Indiana. However, it was reported that no action would be taken in the near future unless cutting of retail prices became more widespread.

Gasoline originating at refineries located in the Central States continued to be the dominant factor in the gasoline market in Illinois, Indiana and lower Michigan. Movement of U. S. Motor gasoline to jobbers in this area generally was on a basis of 0.125 to 0.25 cent below prices prevailing for the remainder of the Standard of Indiana territory where the Group 3 refiners have more competitive freight rates.

Several marketers offered U. S. Motor gasoline, for Illinois and Indiana shipment, freely at 5.50 to 5.625 cents, f. o. b. Group 3 and a number of sales were reported at 5.375 cents Group 3 basis.

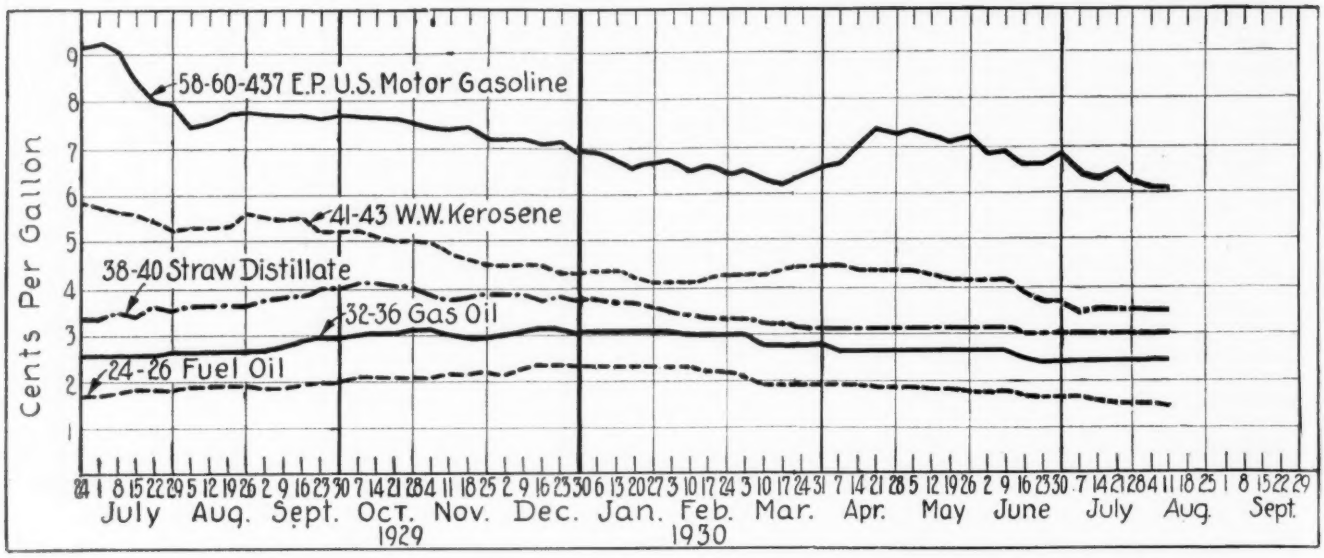
Jobbers at certain points, such as Detroit, were able to purchase goods at around 8.40 to 8.50 cents delivered. Some industrial business was reported closed in Detroit at a delivered price of 8.125 cents. It was reported that one automobile company refused to pay more than 8 cents delivered, for U. S. Motor, but no sales at this figure could be confirmed.

The bulk of sales for U. S. Motor gasoline, for general shipment in the Indiana territory, were reported at 5.75 to 6.125 cents after Aug. 6 and at 5.875 to 6.125 cents prior to that date. Some sales were reported Aug. 9 at 5.625 cents. Carlot marketers reported they were offered U. S. Motor for resale in Oklahoma at 5.50 cents, but that most sellers were holding for 5.625 or 5.75. Purchases of North Texas Motor were reported at 5.50 to 5.625 cents.

Reports from most sellers indicated that sales of kerosenes have been satisfactory the past week, although no changes in prices were apparent. Several sellers said that less kerosene was being used this year as many farmers were using distillate. Most sales of the 41-43 w. w. grade were made at 3.125 to 3.50 cents. Some sales of off specification goods were reported at 3 cents.

Industrial concerns continued to operate at only part of the capacity, according to reports, and consequently demand for fuel oil from this class of trade was slack. Several distributors of furnace oils said they would be in the market last this month to buy supplies to store in anticipation of the

## Current Prices of Principal Mid-Continent Refined Products


Cents Per Gallon
58-60-437 E.P. U.S. Motor Gasoline
41-43 W.W. Kerosene
38-40 Straw Distillate
32-36 Gas Oil
24-26 Fuel Oil
July Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar. Apr. May June July Aug. Sept.
1929
1930

*Prices shown are in Group 3 basis and extended to date shown in Refinery Market Tables Section of this issue*

coming season. At present, most activity in these products was confined to contracting for the coming winter's requirements of home burner owners.

Generally fair weather with temperatures mostly moderate is likely over most of the Standard of Indiana territory next week, says the Chicago weather bureau.

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**Wisconsin Publishes Code Booklet**

CLEVELAND, Aug. 5.—The Wisconsin Marketing Code Committee, of which C. F. Spangler, The Texas Co., Milwaukee, is chairman, for the benefit of signers of the code in that state, has issued a booklet containing the code and interpretations, and explanations of what can and cannot be done by oil marketing companies under the various code clauses. The booklet also contains a list of oil companies in Wisconsin signing the code.

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**Correction**

CLEVELAND, Aug. 1.—On page 75 of the June 11 issue of NATIONAL PETROLEUM NEWS the statement was made that G. Anabele had been made chief chemist of the McColl-Frontenac Oil Co. Ltd. This statement was in error, although the information was obtained from an employe of the company and was considered authentic at the time.

Gavin R. Taylor was made chief chemist of that company on March 1 last and has occupied that position continuously since that date. Mr. Taylor was previously employed by the Tidewater Oil Co.

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LONDON—The boards of directors of the North Broken Hill, the Broken Hill South, the Zinc Corp., and the Electrolytic Zinc companies of Australia have just issued a joint statement announcing the purchase of an oil-refining plant and an option on 11,000 acres of oil-shale lands at Newnes, in New South Wales.

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CLEVELAND, Aug. 9.—The Federal Trade Commission has ordered a manufacturer of tablets similar to moth balls to cease advertising that they will remove carbon, give added mileage, lessen odor, smoking and knocking or promote higher engine efficiency when placed in gasoline.

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NEW YORK, Aug. 9.—J. M. Woodruff of the Sinclair Refining Co. has been made a member of the eastern regional Code committee of the American Petroleum Institute.

## Shipments From Southern California

LOS ANGELES, Aug. 8.—Bulk petroleum shipments from Southern California ports to Foreign and Atlantic Seaboard ports for week ended Aug. 2 were 1,394,377 barrels as compared with 1,317,591 barrels for previous week. Destination and quantity of shipments were as follows:

| Destination | Crude | Gasoline | Diesel | Kerosene | Fuel | Gas-Oil | Total |
|---|---|---|---|---|---|---|---|
| Pacific For. | 127,134 | 32,658 | 124,450 | 192,378 | 204,790 | ..... | 681,410 |
| Atlantic Dom. | ..... | 485,815 | 73,666 | ..... | ..... | ..... | 559,491 |
| Atlantic For. | ..... | 153,486 | ..... | ..... | ..... | ..... | 153,486 |

### *Prices 10 Years Ago*
### *Aug. 9, 1920*

| | Oklahoma | Penna. |
|---|---|---|
| 58-60 U. S. Motor.. | 23.50-24.00c | 27.25c |
| 80-84 Natural ..... | 20.00-21.00c | ..... |
| Kerosene (41-43 Okla.; 47 w.w. Pa.) | 10.25-10.50c | 15.50c |
| Fuel Oil (24-26 Okla.; 38-40 Pa.) | $3.25-$3.40 | 12.25c |
| Crude (Okla. 35-35.9) | $3.50 | $6.10 |
| Chicago tank wagon | .....26.00c | |

### *Prices A Year Ago*
### *Aug. 12, 1929*

| | Oklahoma | Penna. |
|---|---|---|
| 58-60 U. S. Motor.... | 7.5334c | 8.875-9.25c |
| Grade A Natural..... | 6.375-6.50c | ..... |
| Kerosene (Okla. 41-43; Pa. 47 w. w.) | 5.125-5.50c | 6.75-7.50c |
| Fuel Oil (Okla. 24-26; Pa. 36-40).... | $0.75-$0.85 | 4.25-4.50c |
| Crude (Okla. 35-35.9) | $1.40 | $3.55 |
| Chicago tank wagon | .....19.00c | |

# Mid-Continent Refinery Markets

## Natural Gasolines Continue Advance

Staff Special
Aug. 9

A REDUCTION of 1 cent per gallon in prices quoted for neutral oils, a 3-cent reduction in bright stock quotations, and an advance of 0.50 to 0.75 cent in natural gasoline prices, featured the Mid-Continent market the week of Aug. 4 to 9. Demand for refined gasolines was fair in most districts, but no upward tendencies in prices developed.

The reduction in neutral oils and bright stock prices was not unexpected. Competition from other districts had been keenly felt by Mid-Continent manufacturers for some time. Pennsylvania refiners in particular have caused the Mid-Continent refiners no end of grief on bright stock business. The season for heavier consumption of neutral oils is drawing near and with business not coming in as many had anticipated.

The continued upward trend in natural gasoline prices was due to the increased demand for the material and the exceptionally good statistical position in which the industry has found itself. Several sizeable orders were placed the past week, the purchases ranging from 25 to 100 cars at a time.

The Carter Oil Co. which was credited with dumping large quantities of natural gasoline on the market about 60 days ago and causing prices to decline drastically, was understood to have bought 100 cars of grade AA, and Humble Oil & Refining Co., like the Carter a Standard of New Jersey subsidiary, 200 cars of grade AA early this month at 5 cents a gallon. The Carter had sold some of its gasoline at 4 cents, and it was generally believed that a marketer had 125 cars a month coming from the company during August and September at 0.25 cent under the low of Platt's Oilgram price, date of shipment.

One large manufacturer on Aug 9 was openly offering to buy grade AA at 5.50 cents a gallon, but apparently found little gasoline available. Reports from virtually all manufacturers indicated they were completely sold up until after the middle of the month, and a few said they would have no gasoline to offer on the spot market the remainder of the month.

Refined gasolines failed to develop any firmness during the week. A majority of refiners in Oklahoma continued to quote 58-60 U. S. Motor at 6 to 6.50 cents, but a few of the smaller plants who must have instructions almost daily due to lack of adequate storage space, were forced to offer gasolines 0.25 cent lower, both to jobbers and for resale.

Kansas refiners for the most part said they were in good shape as far as gasoline stocks were concerned, and that orders were fair, but because of keen competition from other districts they were unable to enjoy any increases in prices.

North and West Texas refiners reported demand fair but again the old story of competition was heard. The same story also was told by the Louisiana and Arkansas refiners. In that district prices were reduced 0.25 cent early in the week, for gasoline moved into differential territory. The reduction was due partly to the quotations in north Texas being sufficiently under those in the Louisiana-Arkansas district to permit jobbers in differential territory to buy in north Texas if they desired.

While all districts reported spot demand only fair, there apparently was little complaint regarding movement of gasolines on contract.

Kerosenes were almost lifeless in most districts, the one exception being in Kansas where refiners said they continued to enjoy a fair amount of business. The grade of kerosenes made in Kansas, however, is above the average in other districts and is used extensively in tractors and for heating incubators.

There has been considerable speculation as to the outlook for kerosenes the next 60 days. The continued hot weather and lack of rain has prevented farmers from getting into their fields for fall plowing, and a few sellers of kerosenes anticipate a slight increase in demand as soon as the dry spell is broken.

Distillates were quiet. Little spot buying was reported, and few jobbers apparently were interested in storing the oil just at present. One large seller said he had found an excellent demand for distillate for tractor fuel since tank wagon prices for kerosene were so near those of gasoline.

Gas oils in Louisiana and Arkansas were exceptionally scarce most sellers said. One company which formerly made a large quantity of gas oil is not making any at the present time, and another large maker has been closed down for some time. The demand has held up well in that territory and the result has been a gradual lowering of stocks. Quotations Aug. 9 were 2.75 to 3.25 cents, depending on the source of supply and the grade.

Fuel oils were in fair demand most refiners said. No changes of consequence were noted in prices. The lighter grades were the most active at the present time. The heavier oils were sluggish with stocks continuing to increase.

Wax inquiries were considerably better several manufacturers reported. Some new buying also was reported and the prevailing quotation Aug. 9 for 124-126 white crude scale was 2 cents a pound. Inquiries for future delivery also showed some improvement at least one sales manager reported.

## N. P. N. Service Record

**Some of the requests for information, data and advice, which were taken care of in various National Petroleum News offices in the past week are:**

**Pittsburgh advertising agency** supplied with information regarding the construction and maintenance of pipeline communication systems.

* * *

**Michigan inquirer given information** regarding gravity, sulfur content and distillation range of Schurr, Kansas, crude.

* * *

**List of heads of marine departments** of major oil companies compiled for coast advertiser.

* * *

**Refiner-marketer furnished with** copies of articles carried in N. P. N. describing automatic vending devices.

* * *

**Magazine writer given information** that anti chain store propaganda has not had important effect on oil company chain station business.

* * *

**Manufacturer given bibliography** of Edeleanu refining process literature and list of installations.

* * *

**List of buying offices of major oil** companies furnished Cincinnati company.

* * *

**Canadian jobber given history of** development of estimated weights in railroad shipments of petroleum products.

* * *

**Author of work on lubrication cited** to Texas Corp. magazine dealing with that subject.

* * *

**Jobber given viscosity recommendations** of motor car manufacturers and information on fuels for farm tractors.

* * *

**Kentucky farmer given advice** regarding where to go to try selling an oil lease on his farm.

* * *

**North Dakota jobber given list of** refiners in Wyoming and data on recent action of state weighers and sealers.

# Comparative Prices of 58-60 U. S. Motor Gasoline, 437 E. P., Group 3 and Point of Origin, to Jobbers Only

In Effect August 11

| | *Price F.O.B. Group 3* | | *Price F.O.B. Point of Origin* | | *If for Particular Destination* |
|---|---|---|---|---|---|
| Oklahoma | 6.4687 | (Wt. Avg.) | 6.4687 | (Wt. Avg.) | ..... |
| Kansas | 6.125–6.50 | ..... | ..... | ..... | S. O. Neb. & Indiana Territory, etc. |
| Kansas | ..... | ..... | 6.9286 | (Wt. Avg.) | Kansas only. |
| North Texas | 5.75–6.00 | ..... | 5.75–6.25 | ..... | ..... |
| West Texas | 5.875 | ..... | 5.75–6.25 | ..... | ..... |
| Louisiana-Arkansas | 6.00–6.25 | ..... | ..... | ..... | Michigan, Ohio and Indiana. |
| Louisiana-Arkansas | ..... | ..... | 6.50 | ..... | State or differential haul. |
| Indiana-Illinois | 5.75–6.00 | ..... | ..... * | ..... | S. O. Indiana territory except Detroit and vicinity. For Ohio on delivered basis only. |

*Shipments made from E. Chicago, Ind., and Wood River, Ill., according to conditions and freight rates; no prices F.O.B. point of origin can be given.

# Chicago Resale Market

CHICAGO, Aug. 9.

SPOT tank car gasoline prices continued to move downward in the Chicago market last week, despite a fairly active spot demand and an excellent demand from contract buyers. U. S. Motor gasoline, for general shipment over the Indiana territory moved mostly at 5.75 to 6.125 cents as the week closed. Motor gasoline originating at Central States refineries moved at 5.375 to 5.75 cents for shipment to Illinois, Indiana and lower Michigan points. Sales of U. S. Motor gasoline to Detroit jobbers were reported at 8.40 to 8.50 cents delivered.

**Following prices represent majority of sales made on Group 3 freight basis, although shipments may originate in other refining districts such as North and West Texas, Arkansas, Louisiana, Indiana, Illinois, Kentucky, etc.**

| | Prices Aug. 11 | Prices Aug. 4 | Prices July 28 |
|---|---|---|---|
| 58-60 U. S. Motor, 437 e.p. | 5.75 – 6.00 | 5.875– 6.125 | 5.875– 6.25 |
| 60-62 437 e.p. gasoline | 5.875– 6.25 | 6.00 – 6.25 | 6.00 – 6.375 |
| 60-62 400 e.p. gasoline | 6.00 – 6.375 | 6.125– 6.50 | 6.125– 6.50 |
| 64-66 375 e.p. gasoline | 6.75 – 7.00 | 6.75 – 7.00 | 6.75 – 7.00 |
| 68-70 350-360 e.p. gasoline | 7.00 – 7.375 | 7.25 – 7.50 | 7.25 – 7.50 |
| *Domestic Aviation Gasoline | 9.00 – 9.25 | 9.00 – 9.25 | 9.00 – 9.25 |
| 41-43 w.w. kerosene | 3.125– 3.50 | 3.125– 3.50 | 3.25 – 3.625 |
| 42-44 w.w. kerosene | 3.50 – 4.00 | 3.50 – 4.00 | 3.875– 4.25 |
| 38-40 straw distillate | 2.75 – 3.00 | 2.75 – 3.00 | 2.75 – 3.00 |
| 32-36 ordinary dark gas oil | 2.125– 2.375 | 2.125– 2.375 | 2.125– 2.375 |
| 32-36 dark zero gas oil | 2.25 – 2.50 | 2.25 – 2.50 | 2.25 – 2.50 |
| 32-36 straw zero gas oil | 2.625– 2.75 | 2.625– 2.75 | 2.625– 2.75 |
| 28-30 zero fuel oil (per bbl.) | $0.80 –$0.825 | $0.80 –$0.85 | $0.80 –$0.85 |
| 28-30 fuel oil (per bbl.) | $0.80 –$0.825 | $0.80 –$0.85 | $0.80 –$0.85 |
| 24-26 fuel oil (per bbl.) | $0.60 –$0.65 | $0.60 –$0.65 | $0.60 –$0.65 |
| 18-22 fuel oil, low sulfur (per bbl.) | $0.50 –$0.525 | $0.50 –$0.575 | $0.50 –$0.575 |
| 18-22 fuel oil, high sulfur zero (per bbl.) | $0.50 –$0.525 | $0.50 –$0.575 | $0.50 –$0.575 |
| 14-16 fuel oil (per bbl.) | $0.425–$0.475 | ..... | ..... |

*Prices are based on U. S. Gov't. specifications or better. Present Gov't. specifications require distillation range of 5% recovery at not more than 167° F., and not less than 122° F.; 50% recovery at 221°; 90% at 311°; 96% at 347°; end point 374° F. Gasoline of fighting grade specifications in some instances sells at a premium over domestic aviation grade. Prices represent majority of quotations.

# Weighted Average Prices

## OKLAHOMA

| | Aug. 11 | | Aug. 4 | | July 28 | |
|---|---|---|---|---|---|---|
| | No. of Cars | Price | No. of Cars | Price | No. of Cars | Price |
| 58-60 U. S. Motor, 437 e.p. | 4 | 6.4687 | 8 | 6.2500 | 10 | 6.4000 |
| 60-62 437 e.p. gasoline | .. | 6.125–6.50 (See note) | 6 | 6.5417 | .. | 6.50–6.75 (See note) |
| 60-62 400 e.p. gasoline | 1 | 6.7500 | 1 | 6.7500 | .. | 6.75–7.00 (See note) |
| 64-66 375 e.p. gasoline | .. | 6.75–7.00 (See note) | .. | 7.00–7.25 (See note) | .. | 7.00–7.25 (See note) |
| 58-60 437 e.p. gasoline (Full U. S. Motor specifications not guaranteed.) | .. | 5.75–6.375 | .. | 5.875–6.375 | .. | 5.875–6.375 |

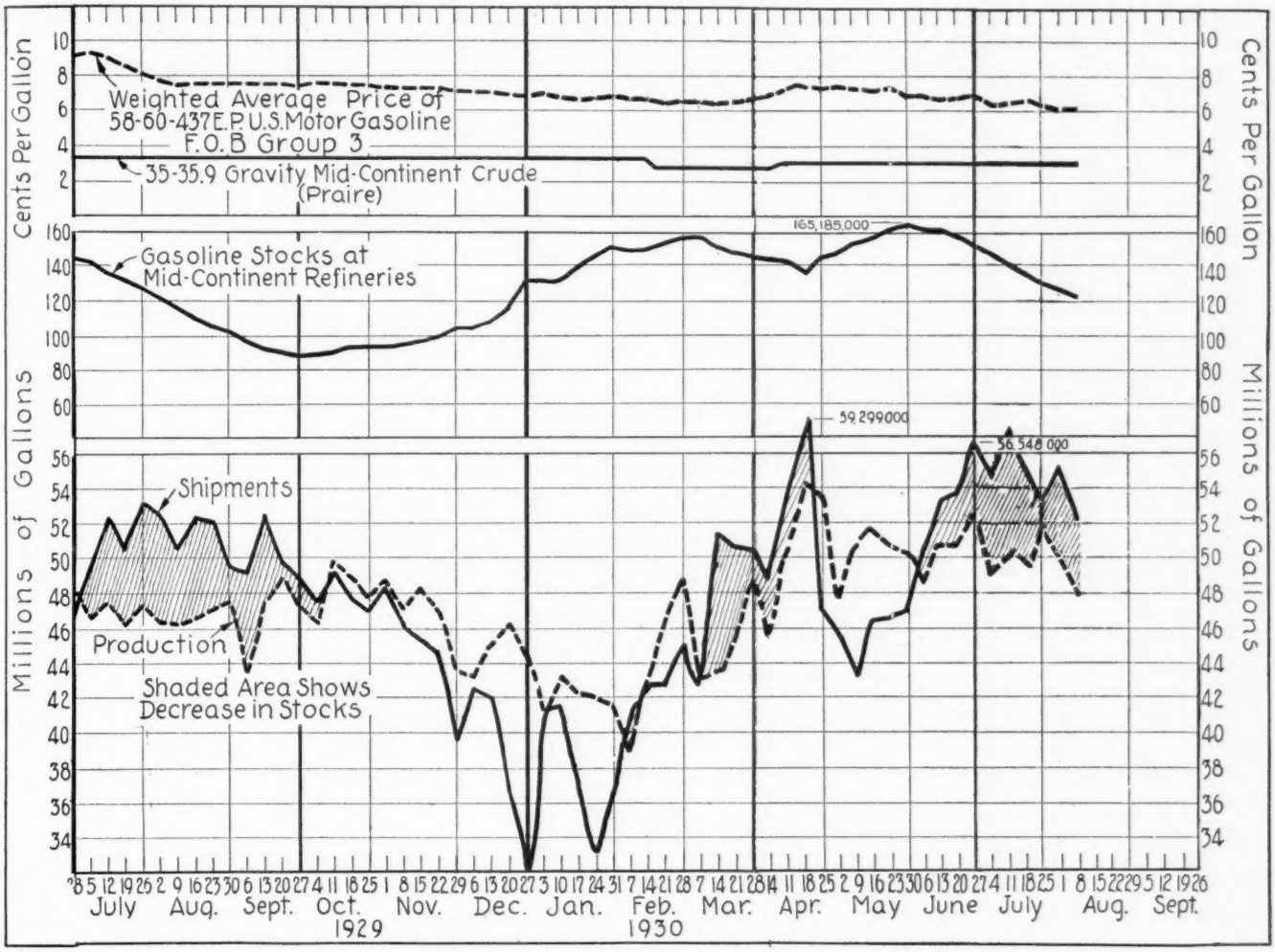
## KANSAS

| | Aug. 11 | | Aug. 4 | | July 28 | |
|---|---|---|---|---|---|---|
| | No. of cars | Price | No. of cars | Price | No. of Cars | Price |
| 58-60 U. S. Motor, 437 e.p. | 7 | 6.9286 | 11 | 6.8974 | 13 | 7.2115 |

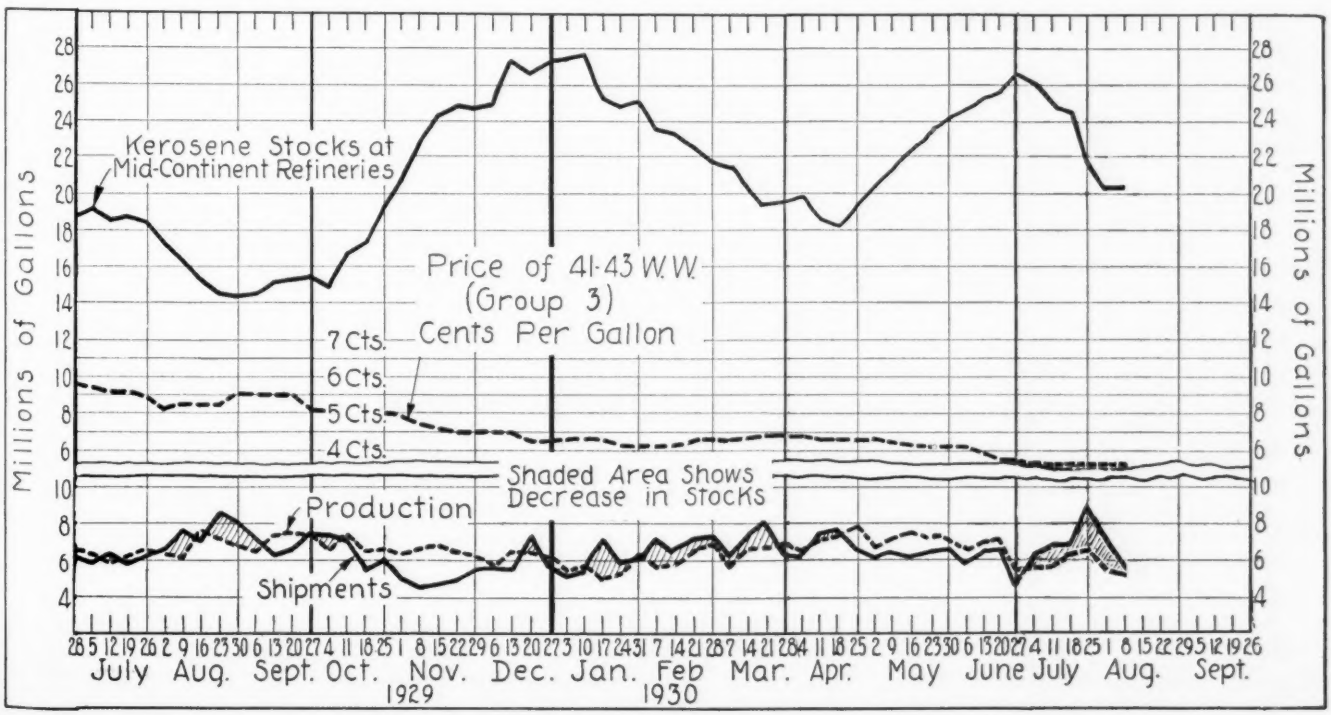
**Note: No sales reported for the gasoline marked "see note" on the dates so marked; prices shown on such dates represent majority of quotations only.**

# Barometer of Mid-Continent Refinery Market—Week Ending August 8

*Charted Course of Prices, Production, Shipments, Stocks of Principal Refined Products, Week by Week, From Reports Made by 93 Plants to National Petroleum News*


Cents Per Gallon
Weighted Average Price of 58-60-437 E.P. U.S. Motor Gasoline F.O.B Group 3
35-35.9 Gravity Mid-Continent Crude (Praire)
Gasoline Stocks at Mid-Continent Refineries
165,185,000
59,299,000
56,548,000
Millions of Gallons
Shipments
Production
Shaded Area Shows Decrease in Stocks
July Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar. Apr. May June July Aug. Sept.
1929
1930

*Prices shown above are extended to date shown in Refinery Market and Crude tables in Market section of this issue and stocks, shipments and Production are extended to date as shown in the table on page 98*



# Refinery Markets on Light Oils and Lubricants

**Prices given below are in cents per gallon, except where $ is shown. They represent prices made only to domestic jobbers who resell to the consuming public, except where otherwise noted.**

***(These Refinery Prices compiled in the OIL PRICE HANDBOOK for a whole year)***

## GASOLINE AND NAPHTHA

**OKLAHOMA** (F. o. b. Oklahoma refineries)

| | Prices Aug. 11 | Prices Aug. 4 | Prices July 28 |
|---|---|---|---|
| 48-50 450 e.p. naphtha | 6.00 | 6.25 | 6.25 |
| 50-52 450 e.p. naphtha | 6.00 | 6.25 | 6.25 |
| 56-58 450 e.p. gasoline | 6.00 – 6.50 | 6.25 – 6.50 | 6.25 – 6.50 |
| 58-60 450 e.p. gasoline | 6.00 – 6.50 | 6.25 – 6.50 | 6.25 – 6.50 |
| 64-66 390 e.p. gasoline | 6.50 – 7.00 | 6.75 – 7.25 | 6.75 – 7.25 |
| 68-70 350-360 e.p. gasoline | 6.75 – 7.00 | 7.25 – 7.50 | 7.25 – 7.50 |
| ‡Domestic Aviation Gasoline | 8.50 – 9.25 | 8.50 – 9.25 | 8.50 – 9.25 |

‡Prices based on U. S. Gov't. specifications or better. Present Gov't. specifications require distillation range of 5% recovery at not more than 167° F., and not less than 122° F.; 50% rec. at 221°; 90% at 311°; 96% at 347°; end point, 374°F. Fighting grade in some instances sells at a premium over domestic aviation grade.

**PENNSYLVANIA** (F. o. b. Western Pennsylvania refineries)

| | | | |
|---|---|---|---|
| 52-54 Naphtha | 7.00 – 7.50 | 7.00 – 7.50 | 7.25 – 7.75 |
| 54-56 Naphtha | 7.00 – 7.50 | 7.00 – 7.50 | 7.25 – 7.75 |
| 58-60 U.S. Motor 437 e.p. | 7.25 – 8.00 | 7.25 – 8.00 | 7.50 – 8.25 |
| 60-62 400-410 e.p. gasoline | 7.25 – 8.00 | 7.50 – 8.125 | 7.75 – 8.50 |
| 64-66 390 e.p. gasoline | 7.75 – 8.75 | 8.00 – 8.75 | 8.125– 9.00 |
| 68-70 350-360 e.p. | 8.50 – 9.125 | 8.50 – 9.125 | 8 50 – 9.25 |

**OHIO (Quotations of S. O. Ohio. 4c state tax to be added.)**

**U. S. Motor Gasoline**

| | | | |
|---|---|---|---|
| Ohio, delivery at any point | 11.00 | 11.00 | 11.00 |

**KANSAS** ( F. o. b. refinery Kansas destination)

| | | | |
|---|---|---|---|
| 60-62 437 e.p. gasoline | 7.25 | 7.25 | 7.25 – 7.50 |
| 60-62 400 e.p. gasoline | 7.50 | 7.50 | 7.50 – 7.75 |
| 64-66 375 e.p. gasoline | 7.75 | 7.75 | 8.00 – 8.25 |

**NORTH TEXAS** (F. o. b. North Texas refineries)

| | | | |
|---|---|---|---|
| 56-58 450 e.p. gasoline | 5.75 | 5.75 | 5.75 |
| 58-60 450 e.p. gasoline | 5.75 | 5.75 | 5.75 |
| 58-60 U.S. Motor 437 e.p. | 5.75 – 6.25 | 5.875– 6.25 | 6.00 |
| 60-62 400 e.p. gasoline | 6.25 – 6.50 | 6.25 – 6.50 | 6.25 – 6.50 |
| 64-66 390 e.p. gasoline | 6.50 – 6.75 | 6.75 | 6.75 |
| 64-66 375 e.p. gasoline | 6.75 | 7.00 | 7.00 |
| 68-70 350-360 e.p. gasoline | 6.75 – 7.00 | 7.25 | 7.25 |

****WEST TEXAS** (F. o. b. West Texas refinery, for unrestricted shipment)

| | | | |
|---|---|---|---|
| 50-52 naphtha | 5.50 | 5.50 | 5.75 |
| 58-60 437 e.p. gasoline | 5.75 | 5.75 | 5.75 – 6.00 |
| 58-60 U.S. Motor 437 e.p. gasoline | 5.75 – 6.25 | 5.75 – 6.25 | 6.00 – 6.25 |

**NORTH LOUISIANA** (N. La., Ark. and Miss. destination)

| | | | |
|---|---|---|---|
| 58-60 U.S. Motor 437 e.p. | 6.50 | 6.75 | 6.75 |

**ARKANSAS** (Ark., N. La. and Miss. destination)

| | | | |
|---|---|---|---|
| 58-60 U.S. Motor 437 e.p. | 6.50 | 6.75 | 6.75 |

**CALIFORNIA** (3c tax to be added to California gasoline prices if used in state.)

| | | | |
|---|---|---|---|
| 54-58 U.S. Motor 437 e.p. | 8.50 –10.50 | 8.50 –10.50 | 9.50 –11.50 |
| 54-58 U.S. Motor, for outside state shipment | 8.00 – 9.25 | 7.50 – 8.75 | 7.50 – 9.00 |
| 58-61 375-400 e.p. gasoline | 9.75 –11.00 | 9.50 –11.00 | 10.50 –12.50 |
| 42-45 Engine Distillate 445-480 e.p. | 8.25 – 9.25 | 8.00 – 9.00 | 8.50 – 9.50 |

## NATURAL GASOLINE

(Note: End point of all grades, not over 375F. Corrosion test adopted Oct. 1, 1927; A.S.T.M. Method D130-27T; doctor test, July 2, 1928.)

**OKLAHOMA** (F. o. b. Oklahoma refineries)

| | | | |
|---|---|---|---|
| Grade AA, 80-87.9, 90% Recovery | 5.50 | 5.00 | 4.75 |
| Grade A, 72-79.9, 90% Recovery | 5.50 | 5.00 | 4.75 |
| Grade BB, 84-92, 85% Recovery | 5.50 | 5.00 | 4.50 |
| Grade B, 76-83.9, 85% Recovery | 5.50 | 5.00 | 4.50 |
| Grade C, 80-92, 78% Recovery | 5.50 | 5.00 | 4.50 |

**NORTH TEXAS** (F. o. b. Breckenridge)

| | | | |
|---|---|---|---|
| Grade AA, 80-87.9, 90% Recovery | 5.50 | 5.00 | 4.75 |
| Grade A, 72-79.9, 90% Recovery | 5.50 | 5.00 | 4.75 |
| Grade BB, 84-92, 85% Recovery | 5.50 | 5.00 | 4.50 |
| Grade B, 76-83.9, 85% Recovery | 5.50 | 5.00 | 4.50 |
| Grade C, 80-92, 78% Recovery | 5.50 | 5.00 | 4.50 |

**NORTH LOUISIANA** (F. o. b. Monroe District)

| | Prices Aug. 11 | Prices Aug. 4 | Prices July 28 |
|---|---|---|---|
| Grade AA | †5.50 | †5.00 | †4.75 |
| Grade BB | †5.50 | †5.00 | †4.50 |
| Grade C | †5.50 | †5.00 | †4.50 |

**CALIFORNIA** (F. o. b. California refineries)

| | | | |
|---|---|---|---|
| 75-85, 375-390 e.p. blend | 7.00 – 8.25 | 7.00 – 8.25 | 7.00 – 8.25 |

## BURNING OILS

**PENNSYLVANIA** (F. o. b. Western Pennsylvania refineries)

| | | | |
|---|---|---|---|
| 45 w. w. kerosene | 4.375– 4.75 | 4.25 – 4.75 | 4.375– 4.75 |
| 46 w. w. kerosene | 4.75 – 5.00 | 4.75 – 5.00 | 4.75 – 5.00 |
| 47 w. w. kerosene | 5.00 – 5.50 | 5.00 – 5.50 | 5.125– 5.50 |
| 300 mineral seal | 5.50 – 6.00 | 5.50 – 6.00 | 5.50 – 6.00 |

**OKLAHOMA** (F. o. b. Oklahoma refineries)

| | | | |
|---|---|---|---|
| 41-43 w.w. kerosene | 3.25 – 3.75 | 3.25 – 3.75 | 3.25 – 3.75 |
| 42-44 w.w. kerosene | 4.00 – 4.25 | 4.00 – 4.25 | 4.00 – 4.25 |

**KANSAS** (F. o. b. refinery Kansas destination)

| | | | |
|---|---|---|---|
| 41-43 w.w. kerosene | 4.25 – 4.50 | 4.25 – 4.50 | 4.50 – 4.75 |
| 42-44 w.w. kerosene | 4.75 – 5.00 | 4.75 – 5.00 | 5.00 – 5.25 |

**NORTH TEXAS** (F. o. b. North Texas refineries)

| | | | |
|---|---|---|---|
| 40-42 w.w. kerosene | 3.00 | 3.00 | 3.00 |
| 41-43 w.w. kerosene | 3.00 – 3.25 | 3.00 – 3.25 | 3.00 – 3.25 |

**NORTH LOUISIANA** (N. La., Ark. and Miss. destination)

| | | | |
|---|---|---|---|
| 41-43 w.w. kerosene | 4.00 | 4.00 – 4.25 | 4.25 |
| 42-44 w.w. kerosene | 4.25 – 4.50 | 4.50 | 4.50 |

**ARKANSAS** (Ark., N. La. and Miss. destination)

| | | | |
|---|---|---|---|
| ‡41-43 w.w. kerosene | 3.75 | 3.75 | 4.125 |

‡Changed from 42-44 w.w. to 41-43 w.w. kerosene, Aug. 4.

**CALIFORNIA** (F. o. b. California refineries)

| | | | |
|---|---|---|---|
| 38-40 w.w. kerosene | 4.25 – 5.50 | 4.25 – 4.50 | 4.00 – 5.00 |

## NEUTRAL OIL

**PENNSYLVANIA** (F. o. b. Western Pennsylvania refineries)

| Vis. | | (Viscosity at 70° F.) | |
|---|---|---|---|
| 200 No. 3 Assoc. Filt. | 18.00 –21.00 | 18.00 –21.00 | 19.00 –21.00 |
| 180 No. 3 Assoc. Filt. | 16.00 –17.50 | 16.25 –17.50 | 16.50 –17.50 |
| 150 No. 3 Assoc. Filt. | 12.00 –14.00 | 12.25 –14.00 | 12.25 –14.00 |
| | | (Non Viscous) | |
| 34 Grav. 330-340 Flash | 5.75 – 6.50 | 5.75 – 6.50 | 5.75 – 6.50 |

****MID-CONTINENT** (F. o. b. Mid-Continent refineries)

| Vis. Color | | (Viscosity at 100° F.) | |
|---|---|---|---|
| 100—No. 2 | 6.00 | 6.00 – 7.00 | 6.00 – 7.00 |
| 150—No. 3 | 7.50 | 8.00 – 8.50 | 8.00 – 8.50 |
| 150—No. 4 | 7.00 | 7.00 – 8.00 | 7.00 – 8.00 |
| 180—No. 3 | 8.00 – 9.00 | 9.00 –10.00 | 9.00 –10.00 |
| 180—No. 4 | 8.50 | 9.00 – 9.50 | 9.00 – 9.50 |
| 180—No. 5 | 8.00 | 8.50 – 9.00 | 8.50 – 9.00 |
| 200—No. 3 | 10.50 | 11.00 –11.50 | 11.50 |
| 200—No. 4 | 10.00 | 10.00 –11.00 | 10.00 –11.00 |
| 200—No. 5 | 9.50 | 10.50 | 10.50 |
| 220—No. 3 | 12.50 | 12.50 –13.50 | 12.50 –13.50 |
| 220—No. 4 | 12.00 | 12.00 –12.50 | 12.00 –12.50 |
| 220—No. 5 | 11.00 | 11.00 –12.00 | 11.00 –12.00 |
| 240—No. 3 | 13.50 –14.00 | 13.50 –15.00 | 13.50 –15.00 |
| 240—No. 4 | 12.50 –13.00 | 12.50 –14.00 | 12.50 –14.00 |
| 240—No. 5 | 12.00 | 12.00 –13.00 | 12.00 –13.00 |
| 280—No. 3 | 16.00 | 17.00 | 17.00 |
| 280—No. 4 | 15.00 | 15.00 –16.00 | 15.00 –16.00 |
| 280—No. 5 | 14.00 | 14.00 –15.00 | 14.00 –15.00 |

**†Prices nominal** **††Only one refiner quoting** ***Quotations only** ****Represents Both Sales and Quotations.**

# Refinery Markets Wax, Lubricants, Heavy Oil

Prices given below are in cents per gallon, except where $ is shown. They represent prices made only to domestic jobbers who resell to the consuming public, except where otherwise noted.

*(For quick reference to Refinery Prices, get the OIL PRICE HANDBOOK, published annually)*

**GULF COASTAL** (F. o. b. Gulf Coastal refineries)

| Vis. Color | Prices Aug. 11 | Prices Aug. 4 | Prices July 28 |
|---|---|---|---|
| | (Viscosity at 100° F., pour test 0) | | |
| 100—No. 2 Pale | 6.50 – 7.00 | 6.50 – 7.00 | 6.50 – 7.00 |
| 200—No. 3 Pale | 9.50 – 9.75 | 9.50 – 9.75 | 9.50 – 9.75 |
| 300—No. 3 Pale | 10.75 –11.00 | 10.75 –11.00 | 10.75 –11.00 |
| 500—No. 3½ Pale | 12.00 –12.25 | 12.00 –12.25 | 12.00 –12.25 |
| 750—No. 4 Pale | 13.50 –13.75 | 13.50 –13.75 | 13.50 –13.75 |
| 1200—No. 5 Pale | 16.00 –16.50 | 16.00 –16.50 | 16.00 –16.50 |
| 2000—No. 4 Pale | 17.00 –17.50 | 17.00 –17.50 | 17.00 –17.50 |
| 200—No. 5½ Red Oil | 8.75 – 9.00 | 8.75 – 9.00 | 8.75 – 9.00 |
| 300—No. 5½ Red Oil | 10.00 –10.25 | 10.00 –10.25 | 10.00 –10.25 |
| 500—No. 6 Red Oil | 11.25 –11.50 | 11.25 –11.50 | 11.25 –11.50 |
| 750—No. 6 Red Oil | 12.75 –13.00 | 12.75 –13.00 | 12.75 –13.00 |
| 1200—No. 5-6 Red Oil | 15.00 –15.25 | 15.00 –15.25 | 15.00 –15.25 |
| 2000—No. 6 Plus Red Oil | 17.00 –17.50 | 17.00 –17.50 | 17.00 –17.50 |

**‡CALIFORNIA** (F. o. b. California refineries)

| Vis. Color | | (Viscosity at 100° F.) | |
|---|---|---|---|
| 100—No. 3 | 9.50 –10.00 | 9.50 –10.00 | 9.50 –10.00 |
| 200—No. 3 | 11.50 | 11.50 | 11.50 |
| 300—No. 3 | 13.00 | 13.00 | 13.00 |
| 450—No. 3 | 15.50 | 15.50 | 15.50 |
| 550—No. 3 | 16.50 | 16.50 | 16.50 |
| 600—No. 3 | 17.00 | 17.00 | 17.00 |
| 200—No. 5 | 11.00 | 11.00 | 11.00 |
| 300—No. 5 | 12.00 | 12.00 | 12.00 |
| 400—No. 5 | 14.00 | 14.00 | 14.00 |
| 500—No. 5 | 15.00 | 15.00 | 15.00 |
| 600—No. 5 | 16.00 | 16.00 | 16.00 |
| 700—No. 7 | 18.00 | 18.00 | 18.00 |

‡Neutral oils not manufactured commercially in California.

## CYLINDER STOCKS

**MID-CONTINENT** (F. o. b. Mid-Continent refineries)

**(Bright stock prices represent quotations to domestic jobbers only.)**

| | | | |
|---|---|---|---|
| 190-200 Vis. D at 210° Brt. St. | 30.00 | 33.00 | 33.00 |
| 150-160 Vis. D at 210° Brt. St., 15-20 cold test | 25.00 | 28.00 | 28.00 |
| 150-160 Vis. D Brt. Stock, 25-45 cold test | 24.00 | 27.00 | 27.00 |
| 150-160 Vis. E 210° Brt. St. | 23.00 | 26.00 | 26 00 |
| 600 St. Ref. Olive Green | 8.00 | 9.00 | 9.00 |
| 600 St. Ref. Dark Green | 8.00 | 8.00 – 9.00 | 8.00 – 9.00 |
| Black Oil | 5.00 | 5.00 | 5.00 |

**PENNSYLVANIA** (F. o. b. Western Penna. refineries) (A.S.T.M. Tests)

| | | | |
|---|---|---|---|
| 600 Steam Refined, filterable | 11.00 | 11.00 | 10.00 –11.00 |
| 650 Steam Refined | 15.00 –17.00 | 15.00 –17.00 | 15.00 –17.00 |
| 600 Flash | 18.00 –21.00 | 18.00 –21.00 | 19.50 –21.00 |
| 630 Flash | 25.50 –28.00 | 25.50 –28.00 | 25.50 –28.00 |
| 600 Warren E | 16.50 –18.00 | 17.00 –18.00 | 17.00 –18.00 |
| 600 Oil City E | 15.50 –17.00 | 16.00 –17.00 | 16.00 –17.00 |
| 600 D Filtered | 19.00 –21.00 | 20.00 –22.00 | 20.00 –22.00 |
| Cold Test Stock, 40-50 p. p., 140-150 vis. at 210° 540-550 flash, No. 8 color | 25.00 –26.00 | 25.00 –26.00 | 25.00 –26.00 |
| 40-50 p.p.— 140-150 vis. 210°, 540-550 flash, No. 6-6½ color diluted | 23.00 –24.00 | 23.00 –24.00 | 23.00 –24.00 |

## WAX

**PENNSYLVANIA** (Per pound, F. o. b. New York)

| | | | |
|---|---|---|---|
| 122-124 white crude scale, a.m.p. | 2.25 | 2.125– 2.25 | 2.125– 2.25 |
| 124-126 white crude scale, a.m.p. | 2.25 | 2.125– 2.25 | 2.125– 2.25 |

****OKLAHOMA** (Per pound in barrels; in a few instances, per pound in burlap bags; F. o. b. Oklahoma refineries.)

| | | | |
|---|---|---|---|
| 124-126 White Crude Scale, a.m.p. | 2.00 | 1.75 – 2.00 | 1.75 – 2.00 |

## DISTILLATE, GAS AND FUEL OIL

**PENNSYLVANIA** (For outside Pittsburgh district)

| | | | |
|---|---|---|---|
| 36-40 fuel oil | 3.25 – 3.50 | 3.25 – 3.50 | 3.125– 3.50 |
| 30-34 fuel oil | 3.25 – 3.375 | 3.125– 3.25 | 3.125– 3.25 |
| 28-32 fuel oil | 3.25 – 3.375 | 3.125– 3.25 | 3.125– 3.25 |

**†Prices nominal** **††Only one refiner quoting** ***Quotations only**

**OKLAHOMA** (F. o. b. Oklahoma refineries)

| | Prices Aug. 11 | Prices Aug. 4 | Prices July 28 |
|---|---|---|---|
| 38-40 straw distillate | 2.875– 3.125 | 2.875– 3.125 | 2.875– 3.125 |
| 36-38 straw distillate | 2.75 – 2.875 | 2.75 – 2.875 | 2.75 – 2.875 |
| 32-36 straw gas oil | 2.375– 2.50 | 2.375– 2.50 | 2.375– 2.50 |
| 32-36 straw gas oil zero | 2.625– 2.75 | 2.625– 2.75 | 2.625– 2.75 |
| 32-36 dark gas oil | 2.125– 2.375 | 2.125– 2.375 | 2.125– 2.375 |
| 32-36 dark gas oil zero | 2.375– 2.50 | 2.375– 2.50 | 2.375– 2.50 |
| 28-30 zero fuel oil (per bbl.) | $0.85 – 0.90 | $0.85 – 0.90 | $0.85 – 0.90 |
| 28-30 fuel oil (per bbl.) | $0.80 – 0.825 | $0.80 – 0.85 | $0.80 – 0.85 |
| 26-28 fuel oil (per bbl.) | $0.70 – 0.75 | $0.70 – 0.75 | $0.70 – 0.75 |
| 24-26 fuel oil (per bbl.) | $0.60 – 0.65 | $0.60 – 0.70 | $0.60 – 0.70 |
| 22-26 fuel oil (per bbl.) | $0.60 – 0.65 | $0.60 – 0.65 | $0.60 – 0.65 |
| 18-22 fuel oil (per bbl.) | $0.475– 0.525 | $0.475– 0.525 | $0.475– 0.525 |
| 16-20 fuel oil (per bbl.) | $0.425– 0.475 | $0.425– 0.475 | $0.425– 0.475 |
| 14-16 fuel oil (per bbl.) | $0.40 – 0.45 | $0.40 – 0.45 | $0.40 – 0.45 |

**KANSAS** (F. o. b. refinery Kansas destination)

| | | | |
|---|---|---|---|
| 38-40 straw distlllate | 3.25 – 3.50 | 3.25 – 3.50 | 3.25 – 3.50 |
| 36-38 straw distillate | 3.00 | 3.00 | 3.00 |
| 32-36 straw gas oil | 3.00 | 3.00 | 3.00 |
| 18-22 fuel oil (per bbl.) | $0.70 – 0.75 | $0.70 – 0.75 | $0.70 – 0.75 |
| 10-14 fuel oil (per bbl.) | $0.55 – 0.65 | $0.55 – 0.65 | $0.55 – 0.65 |

**NORTH TEXAS** (F. o. b. North Texas refineries)

| | | | |
|---|---|---|---|
| 38-40 straw distillate | 2.75 – 3.00 | 2.75 – 3.00 | 2.75 – 3.00 |
| 38-40 p.w. treated distillate | 3.125– 3.25 | 3.125– 3.25 | 3.125– 3.25 |
| 32-36 gas oil, cracked | 2.00 – 2.375 | 2.00 – 2.375 | 2.00 – 2.375 |
| 32-36 St. reduced gas oil | 2.00 – 2.25 | 2.00 – 2.25 | 2.00 – 2.25 |
| 24-26 fuel oil (per bbl.) | $0.50 –$0.55 | $0.50 –$0.55 | $0.50 –$0.55 |
| 20-24 fuel oil (per bbl.) | $0.45 –$0.50 | $0.45 –$0.50 | $0.45 –$0.50 |
| 18-22 fuel oil (per bbl.) | $0.40 –$0.45 | $0.40 –$0.45 | $0.40 –$0.45 |

****WEST TEXAS** (F. o. b. West Texas refinery, or unrestricted shipmen t

| | | | |
|---|---|---|---|
| 34-38 gas oil | 2.25 – 2.50 | 2.25 – 2.50 | 2.25 – 2.50 |
| 30-32 gas oil | 1.875– 2.125 | 1.875– 2.125 | 1.875– 2.125 |
| 28-30 zero gas oil | 2.25 – 2.50 | 2.25 – 2.50 | 2.25 – 2.50 |
| 18-22 fuel oil (per bbl.) | $0.50 –$0.60 | $0.50 –$0.60 | $0.50 –$0.60 |

**NORTH LOUISIANA** (N. La., Ark. and Miss. destination)

| | | | |
|---|---|---|---|
| 32-36 gas oil, dark | *3.25 | 2.75 | 2.75 |
| 30-32 gas oil, straw | *3.00 | 2.75 | 2.75 |
| 14-16 fuel oil (per bbl.) | $0.75 – 0.85 | $0.75 – 0.85 | $0.75 – 0.85 |

**ARKANSAS** (Ark., N. La. and Miss destination)

| | | | |
|---|---|---|---|
| 30-32 gas oil, straw | 2.75 | 2.50 | 2.50 |
| 32-36 dark gas oil | 2.75 | 2.75 | 2.50 |
| 28-30 gas oil | 2.75 | 2.50 | 2.50 |
| 20-24 fuel oil (per bbl.) | $0.95 | $0.95 | $0.95 |
| 9-12 fuel oil (per bbl.) | $0.75 | $0.75 | $0.75 |
| Black oil | 3.25 | 3.25 | 3.25 |

**CALIFORNIA** (F. o. b. San Joaquin Valley. Nominal pipe line charge to San Francisco 24c per bbl. more and to San Pedro 20c per bbl. more.)

| | | | |
|---|---|---|---|
| 14-18 fuel oil (per bbl.) | $0.55 –$0.65 | $0.45 –$0.65 | $0.45 –$0.65 |
| 14-18 Bunker oil (per bbl.) | $0.70 –$0.85 | $0.70 –$0.80 | $0.70 –$0.80 |
| 30-34 gas oil (per bbl.) | $0.85 –$1.00 | $0.85 –$1.00 | $0.80 –$1.00 |
| 27 Plus Diesel oil (per bbl.) | $0.85 –$1.00 | $0.85 –$1.00 | $0.80 –$1.00 |

## PETROLATUMS

**PENNSYLVANIA** (Per pound, in barrels, carload lots, f. o. b. refinery. In tank cars $\frac{5}{8}$c to $\frac{3}{4}$c per pound less.) Two refiners quoting.

| | | | |
|---|---|---|---|
| Snow White | 8.25 – 8.50 | 8.25 – 8.50 | 8.25 – 8.50 |
| Lily White | 7.25 – 7.50 | 7.25 – 7.50 | 7.25 – 7.50 |
| Cream White | 6.25 – 6.50 | 6.25 – 6.50 | 6.25 – 6.50 |
| Light Amber | 3.25 – 3.625 | 3.25 – 3.625 | 3.25 – 3.625 |
| Amber | 3.00 – 3.375 | 3.00 – 3.375 | 3.00 – 3.375 |
| Red | 2.75 – 3.00 | 2.75 – 3.00 | 2.75 – 3.00 |

## PETROLEUM COKE

****OKLAHOMA** (F. o. b. Oklahoma refineries)

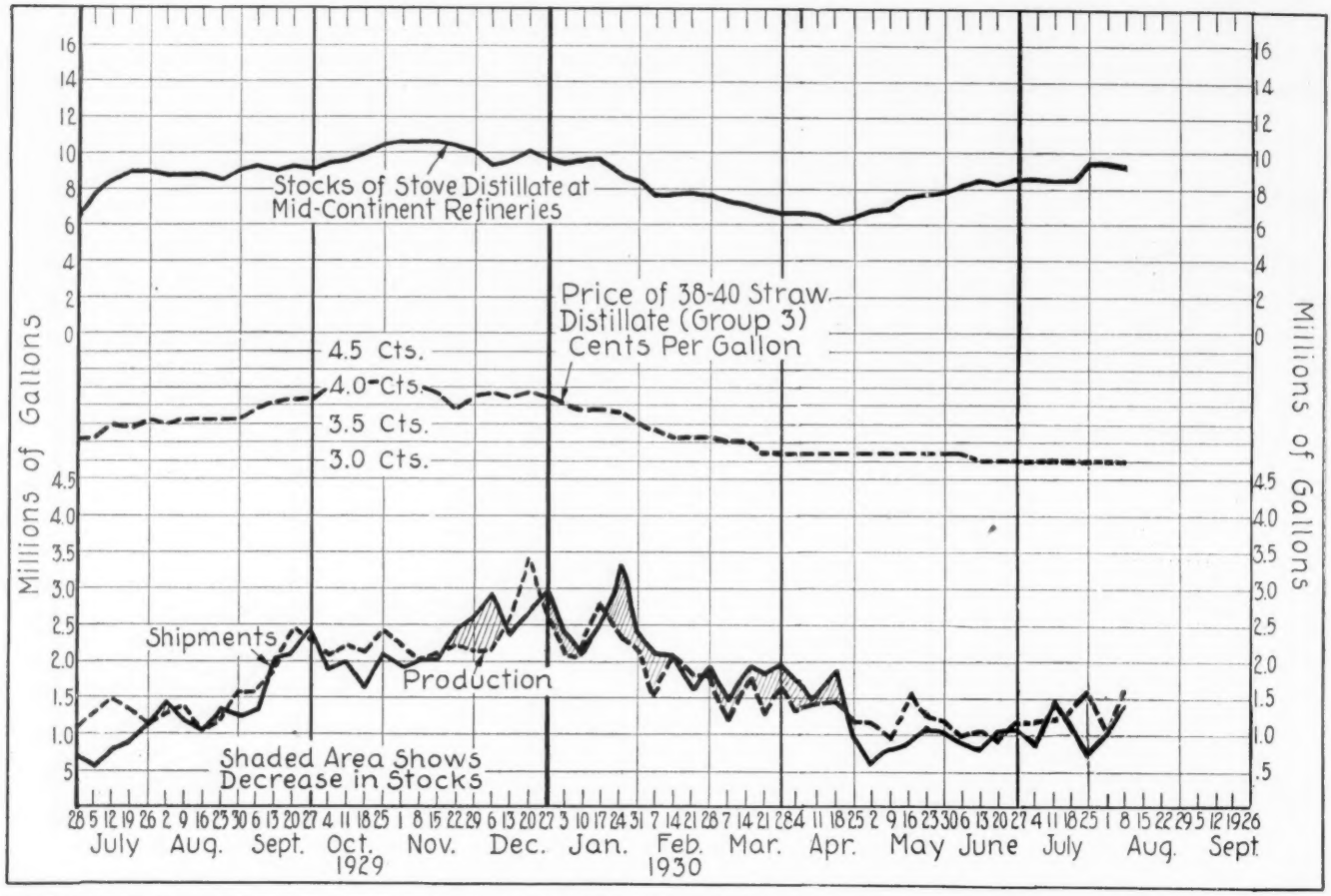
**(Per ton in car lots)**

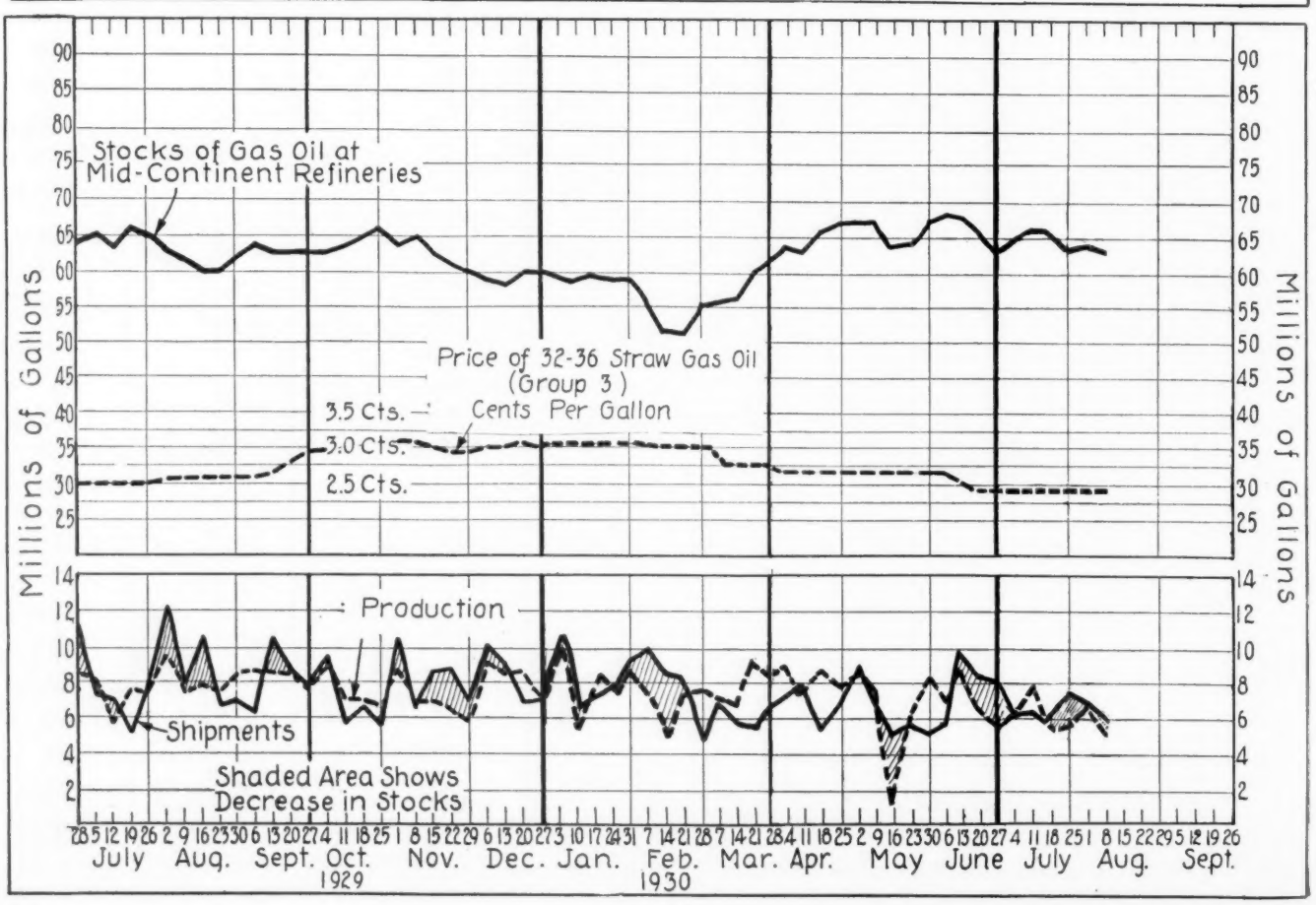
| | | | |
|---|---|---|---|
| Lump | $4.50 –$5.00 | $4.50 –$5.00 | $4.50 –$5.00 |
| Still run | $3.00 | $3.00 | $3.00 |
| Breeze | $2.00 | $2.00 | $2.00 |

****Represents Both Sales and Quotations.**

# Barometer of Mid-Continent Refinery Market—Week Ending August 8

*Charted Course of Prices, Production, Shipments, Stocks of Principal Refined Products, Week by Week, From Reports Made by 93 Plants to National Petroleum News*


Stocks of Stove Distillate at Mid-Continent Refineries
Price of 38-40 Straw Distillate (Group 3) Cents Per Gallon
4.5 Cts.
4.0 Cts.
3.5 Cts.
3.0 Cts.
Shipments
Production
Shaded Area Shows Decrease in Stocks
Millions of Gallons
July Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar. Apr. May June July Aug. Sept.
1929
1930


Stocks of Gas Oil at Mid-Continent Refineries
Price of 32-36 Straw Gas Oil (Group 3) Cents Per Gallon
3.5 Cts.
3.0 Cts.
2.5 Cts.
Production
Shipments
Shaded Area Shows Decrease in Stocks
Millions of Gallons
July Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar. Apr. May June July Aug. Sept.
1929
1930

# WHY DOES
## GILMORE OIL COMPANY
## *use Goodyear Truck Balloons?*

Operators of tank trucks have been quick to welcome the spectacular advantages of these newest Goodyear Tires.

Where the size of tire can be so accurately fitted to the load, these tires deliver amazing mileage.

They also make more trips per day — because they can travel at passenger car speed. They save truck maintenance by absorbing the jolts that shake connections loose — and they provide such a sure and biting grip on the road that trucks can operate with even greater safety.

Those are the reasons you find these Goodyear Truck Balloons on the trucks of Gilmore Oil Company of Los Angeles — and on the trucks of leading gas and oil companies from coast to coast.

In the oil fields also, these big, broad, yielding tires carry loads over ground that would bog down ordinary tires. By all means get in touch with a Goodyear Truck Tire Service Station Dealer and find out what these tires can do for you.

**MORE TONS ARE HAULED ON GOODYEAR TIRES THAN ON ANY OTHER KIND**

**GOODYEAR**

**ON YOUR NEW TRUCKS SPECIFY GOODYEARS**

## Barometer of Mid-Continent Refinery Market—Week Ending August 8

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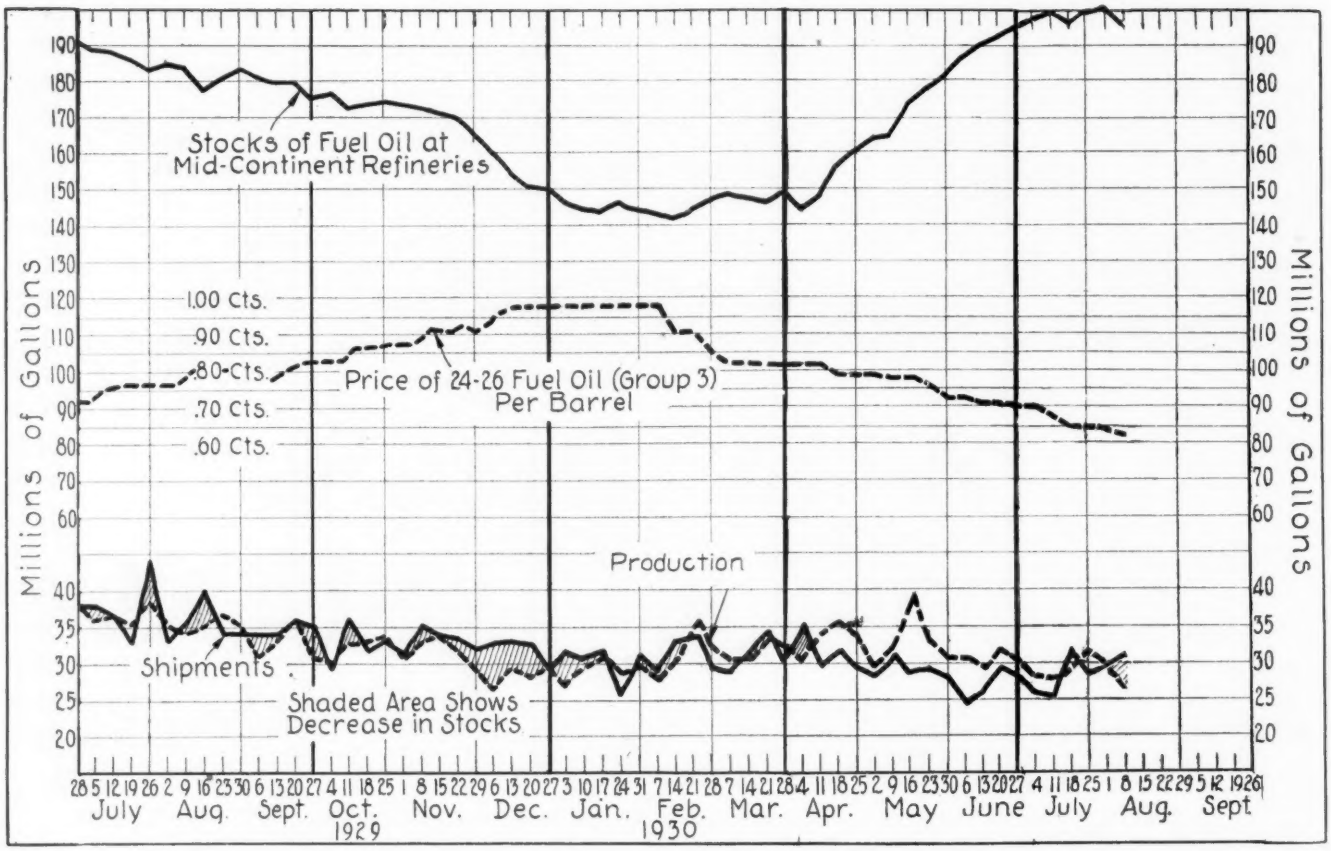


# California Refinery Market

## Large Gasoline Inquiries from India

LOS ANGELES, Aug. 9

PACIFIC Coast markets were less active than usual the past week. Quotations on export products remained unchanged in the face of several foreign inquiries that failed to develop into actual business.

Inquiries from India continued the highlight in the local bulk market. A member of the trade was approached with an inquiry on approximately 250,000 barrels of cased gasoline for delivery over the year. Other business reported in the offing consisted of small lots of 5000 to 10,000 cases respectively.

One marketer expressed as a reason for the increased activity in Oriental circles, the desire of buyers to establish new sources of supplies. At present the queries are of an exploratory nature.

Several eastern and foreign accounts reported seeking U. S. Motor gasoline on the west coast caused some traders to expect increased business in this commodity within the near future. Others felt the presence of large stocks of motor fuel on the east coast precluded buying at this time.

In domestic markets, fuel oils, presented the main item of interest. Quotations on tank car movement were advanced. The trade's opinion of fuel oil was $0.55 to $0.65 per barrel, compared with a range of $0.45 to $0.65 a week ago.

It was indicated future quotations on fuel would not shade $0.55 although one or two members of the trade reported small quantities available at about $0.50 per barrel.

Except for a slight advance in out-of-state gasoline quotations, domestic markets were unchanged over the week. For movement into adjoining states, U. S. Motor gasoline was quoted at 8.00 to 9.25 cents, compared with 7.50 to 9.25 last week.

Gasoline for use within the state was priced generally at 8.50 to 10.50 cents, with a low of 9 cents prevailing on shipments in the Los Angeles Basin Area. These figures do not include tax.

# Pennsylvania Markets

### Steam Refined Oils Active

CLEVELAND, Aug. 11.—Inquiries for most commodities in the Pennsylvania market were reported coming in very much better during the past week. Fuel oil again was active and many refiners were reported as out of the open market until they could get caught up with their contract shipments.

The steam refined market steadied

materially the last few days. Many refiners reported they were sold up and out of the open market until they were in a better position to take care of the large quantities of material that bright stock manufacturers were asking for. Several brokers were trying to buy large quantities of this material with little success. Bright stock was holding up well at its present level of 25 cents for No. 8 color light bright. Dark bright was sold at 23 cents. Both commodities were quiet.

Brokers were of the opinion that they could shade the present quotations on 600 s. r. 0.25 to 0.50 cent for resale. Steam refined was quoted at a flat price of 11 cents.

Reports were general that gasoline was moving at a better pace. Inquiries were coming in with noticeable increase. U. S. Motor was selling at 7.25 cents, although several brokers said they could shade this price on fairly large orders. Sales of 60-62, 400 e. p. gasoline were being made freely at 7.25 cents, a reduction of 0.25 cents.

The 45 w. w. kerosene was being sold 0.125 to 0.25 cent higher. Other grades were unchanged in price.

The wax market improved materially the past few days, both grades advancing 0.125 cent per pound to 2.25 cents. Several refiners said that in New York buyers were the direct cause for most of the wax in the Pennsylvania field disappearing. Some of the largest manufacturers of wax in the Pennsylvania field were reported out of the open market until the last of August and one until the 15th of September. Other wax manufacturers were resisting the efforts of New York brokers to shade the 2.25-cent price.

## Advises Not to Encourage Building of Stations

CLEVELAND, Aug. 11.—Standard Oil Co. of Ohio agents are instructed not to encourage, or permit employes to encourage, or instigate the building of new service stations or dealer outlets.

"The industry is overbuilt today at least five times more than is necessary to serve the public adequately insofar as service station outlets are concerned," reads the order on this subject from A. A. Stambaugh, general sales manager. "Each new outlet dilutes, however slight, and renders less profitable all existing locations."

So long as additional outlets are built by outside capital, it will continue the policy of the company to place under control such outlets as it can which are profitable, it is stated.

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WASHINGTON, Aug. 7.—Stating that Ford cars run 57 miles on a gallon of gasoline in advertising a "vaporizer and decarbonizer" is prohibited in an order of the Federal Trade Commission to the J. A. Stransky Manufacturing Co., Pukwana, S. D.

HAVE YOU DECIDED TO DYE?

DO IT WITH DYKEM GREEN GN
or ONE of the MANY OTHER ATTRACTIVE

*Dykem Gasoline Colors*

That INCREASE SALES

*Write for prices and samples of shades preferred*

DYESTUFFS & CHEMICALS, INCORPORATED
11th & MONROE STS. ST. LOUIS, MO.

Skilled Supervision
Guarantees the Quality of Gulf Products

COASTAL AND PARAFFINE CRUDES
GASOLINE—LUBRICATING OILS
NAPHTHA—GAS—OILS
WAX—PETROLEUM COKE
CYLINDER—ENGINE—CORDAGE

Gulf Refining Company

*General Sales Offices*
PITTSBURGH, PA.

*District Sales Offices*
New York, Boston, Philadelphia, Louisville, Atlanta, Houston, New Orleans

# Gulf Coast Markets

## Independents Underquote Export Assn.

Staff Special.
NEW YORK, Aug. 9.

GASOLINE and kerosene prices for export shipment and the operations of Independents in the export field, largely held the attention of the trade the past week. For the most part quotations for all commodities both for export and domestic shipment were unchanged.

For several weeks now posted prices for gasoline and kerosene—those of the Export Petroleum Association—have been out of line with prices as quoted for domestic consumption in various sections of the Mid-Continent. The association's prices have been high. Indications were that these could be shaded from 0.25 to a full cent with firm business.

The trade has expected some action to be taken by the association to correct this situation. Several association meetings have been held but no reduction, such as has been contemplated several times according to reports, has been taken. Those in close touch with the organization say that the majority of its members are in sympathy with lowering both gasoline and kerosene prices. But the price level cannot be changed without unanimous approval, it was said.

This situation has held back sales of gasoline abroad and made it possible for the independent to underquote association refiners. One of the principal independent operators has bid for most of the business that has come to this country in recent weeks, the trade said, and has offered some very attractive prices. However, little if any business has gone under the association postings.

Cables from the other side received in New York last week indicate that several subsidiaries of American companies were willing to purchase in the American market from the association if prices were reduced. Two independent buyers were said to have been in the market but withdrew when they heard the rumor the association was going to reduce quotations a full cent. None of these companies was believed in dire need of gasoline. Most of their purchases in the past few weeks have been made in Roumania and Russia, where goods is available much cheaper than in the American market.

While 64-66, 375 end point gasoline was quoted at a minimum of 7 cents for domestic shipment in tank cars from Oklahoma, Gulf operators said this price could be shaded 0.50 cent for export movement. A London broker was said to have quoted 8.125 cents for this commodity f.o.b. Gulf oil terminals.

According to some traders two companies in the association were holding out against a reduction. These companies claimed, it was reported, that the majority of their shipments moved on posted prices and they felt it inadvisable to penalize themselves on this business in order to compete for the smaller amount of spot business. Despite the diversity of opinion reports are that the association is functioning favorably and that there is no dissention to any marked degree.

While the refined oils section of the export market has been slow there has been a substantial movement of natural gasoline abroad, to Germany, France and the United Kingdom.

The foreign trade has been blending motor fuel with stocks purchased in the Black Sea district. The price for natural gasoline has been based on the price of 64-66, 375 end point gasoline at the Gulf, butane free natural selling at 10 cents f. o. b. the Gulf and 15 per cent butane at 9 cents.

Orders for Bunker C fuel oil are expected to pick up in the next few weeks when the whaling fleets leave for the South Pole.

# Eastern Domestic Markets

## Seaboard Gasoline Prices Lower

Staff Special.
NEW YORK, Aug. 9.

GASOLINE prices at several east coast points were lower during the week ended August 9. Spot demand was comparatively light in all districts although contract shipments were heavy. Other commodities were unchanged both in price and demand.

U. S. Motor prices in the Charleston, Savannah and Jacksonville districts were 8.75 to 9 cents compared with a flat 9-cent price a week ago. California U. S. Motor at Baltimore slipped off 0.25 cents to 8.50 cent on the low quotation range, in line with the Philadelphia.

These reductions took place around the middle of the week when shading of posted prices to present levels became more prevalent. Prices at Norfolk, Charleston, Savannah and Jacksonville, still were not in line with those in more northern districts. At New York, Philadelphia and Baltimore, 8.25 cents was the low of quotations compared with 8.75 cents in the aforementioned districts.

Refiners in all districts reported the spot demand comparatively slow. A few said orders were fair but these were in the minority. The drive for gallonage continued to affect prices and shading was reported at New York and in New England at the end of the week.

At New York shading has been confined to barge business principally. And prices under this method of merchandising has been affected to a great extent by the amount of gasoline involved.

A broker in New York late in the week sold a large amount of gasoline to a New England buyer at 7.75 cents, f. o. b. the harbor. The amount involved was large enough that several trips would be necessary to move it, transporting it in barges. This business was indicative of the type on which refiners were willing to accept prices under those posted for tank car movement. One of the large Philadelphia refiners still was willing to shade tank car prices for barge movement.

Canadian shipments from New England points have been larger some of the trade said. One refiner credited a substantial increase in his gasoline gallonage over July, 1930, to his Canadian business. Tank wagon levels at Canadian points available to the New England shipper, have been favorable and a good netback has been realized by the refiner.

Boston jobbers still were having to cope with low tank wagon prices in that particular area. One company was offering gasoline in tank car at 9 cents, delivered, 0.25 cent under the market. Also it was reported some gasoline was being delivered at this price in tank wagon. However, it was said that gasoline was inferior to that marketed by the majority of New England refiners and most of them were paying but little attention to the competition.

# *Trucks*

***and trailers—their operation and maintenance—how they lower oil transportation costs and how to sell from the truck seat—30 articles have been devoted exclusively to truck operation in the oil industry in past year's issues of National Petroleum News. They are listed here for your file reference:***

**1930**

Trucks haul tankcar of gasoline per day — June 25, p. 105
Interstate war in southwest involves trucks — May 14, page 30
Refiner-Marketer repairs own trucks in own repair shop — Apr. 23, p. 77
Tests of aluminum semi-trailers show greater speed than steel — March 26, p. 35
Care and maintenance of motor vehicles important — March 19, p. 87
Salary, commissions or both to truck drivers? — March 19, p. 217
Tank truck salesmen, know your products and territory! — March 19, p. 171
Redesigning truck mountings to reduce deadweight — March 19, p. 182
What's new in trucks, truck tanks and trailers — March 19, p. 231
Aluminum tanks and semi-trailers to be given hill tests — March 12, p. 28
Advantages of tractor-trailers told to jobbers — March 5, p. 27
Tank truck as advertising medium — Feb. 26, p. 34
Safety of aluminum for tanks to be investigated — Feb. 12, p. 82
Station sales boosted thru road service truck — Feb. 5, p. 88
Trucking gasoline in Mid-Continent cheaper than rail — Jan. 29, p. 71
Serviceability of aluminum truck tanks demonstrated — Jan. 1, p. 29

**1929**

How aluminum truck tank cuts weight, and increases payload — Dec. 25, p. 39
How large marketer saves 10c per gallon by truck hauling — Dec. 25, p. 122
How semi-trailers are applied to oil hauling — Dec. 18, p. 87
Advantages of six-wheel trucks for oil hauling — Dec. 18, p. 91
Standard truck dimensions proposed by A.P.I. — Dec. 11, p. 29
Potential mileage as basis for truck replacement — Dec. 11, p. 113
Country truck drivers buy from bulk plant — Dec 11, p. 114
Notary Public truck driver improves collections — Nov. 27, p. 108
New York truck drivers' strike ends; unions not recognized — Oct. 23, p. 26
High speed truck serves exclusive district — Oct. 9, p. 95
Salesmanship from the truck seat — Aug. 14, p. 101
Business science cuts oil hauling cost in distribution, truck man says — Aug. 7, p. 89
Refiner delivers liquefied gas by tank wagon — July 10, p. 80
Competitive truck-trailer tests conducted in Pennsylvania hills — July 3, p. 31

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**National Petroleum News**
Main Office: 1213 West Third St.
**Cleveland, Ohio**

# Wax Markets

## Crude Scale Prices Advance

NEW YORK, Aug. 9.—There was a fair amount of activity in wax markets the past week, both from foreign and domestic sources, and prices for white crude scale moved upward 0.125 cents in the New York and New Orleans sections of the market. Fully refined prices were unchanged and spot sales were not numerous.

At the end of the week the general quotation for both grades of white crude scale at New York and New Orleans, was 2.25 cents flat. Some traders believed the New Orleans market could be shaded slightly but no sales were reported at lower figures. On the other hand crude scale in tank cars moved from New York at 2.35 cents on the basis of f. a. s. quotations.

This latter business moved to domestic buyers, who stipulated delivery in August and September. The amount was a few cars only and not taken as representative of the market.

There were numerous small sales reported at the current market for shipment over the next two months. Larger inquiries were in the market and a few resulted in business. Fourteen hundred tons went to a United Kingdom account at 2.25 cents, it was reported. Shipment was said to be over the balance of the year.

While the movement of fully refined for spot shipment was light, contract orders were heavy and sufficient to keep stocks well balanced, the trade said. One or two refiners quoted higher for some of the lower melting point grades. Indications were that other refiners would raise prices in the near future.

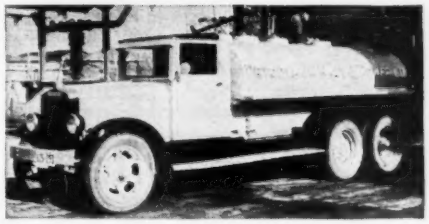
Despite the increase in stocks recently reported by the Bureau of Mines, the trade believed that statistical position of wax markets is much improved. Pennsylvania refiners have reduced operations and wax manufacturing has slowed down. Recent buying accounts for several smaller refiners in this district withdrawing from the market for the next two or three months. Those who would quote for immediate shipment were in the minority, traders said.

Mid-Continent refiners ideas of the market also were higher. Several have sold up over the next two months.

These conditions in the American market have influenced ideas toward higher levels abroad. There was less cheap wax available from Roumania, the trade said.

### Correction

Prices of 130-132 fully refined wax at New York on Aug. 4 as published on page 106 of the Aug. 6 issue of NATIONAL PETROLEUM NEWS was incorrect at 3.75 to 4.625 cents. Correct price on Aug. 4 was 3.75 cents flat.

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# Complete Seaboard Market

*(Export Markets for whole year given in OIL PRICE HANDBOOK. Each volume carries refinery, tank wagon, crude and export markets—complete for the whole year)*

## Eastern Domestic Market

**(Prices for tank car lots, f. o. b. refinery or seaboard terminal, representing majority of sales and quotations. Prices shown below do not include inspection tax levied in some states.)**

| | Prices Aug. 11 | Prices Aug. 4 | Prices July 28 |
|---|---|---|---|
| **U. S. MOTOR GASOLINE** | | | |
| New York harbor | 8.25 – 8.75 | 8.25 – 8.75 | 8.25 – 9.00 |
| Portland district | **10.00–10.30 | **10.00–10.30 | *10.30 |
| Boston district | ** 9.25–10.00 | ** 9.25–10.00 | **9.50 –10.00 |
| Providence district | ** 9.30–10.20 | ** 9.30–10.20 | **9.50 –10.20 |
| Philadelphia district | 8.25 – 9.00 | 8.25 – 9.00 | 8.50 – 9.00 |
| Baltimore district | 8.25 – 9.00 | 8.25 – 9.00 | 8.50 – 9.00 |
| Norfolk district | 8.75 – 9.00 | 8.75 – 9.00 | 8.75 – 9.00 |
| Charleston district | 8.75 – 9.00 | 9.00 | 9.00 |
| Savannah district | 8.75 – 9.00 | 9.00 | 9.00 |
| Jacksonville district | 8.75 – 9.00 | 9.00 | 9.00 |
| **CALIFORNIA, U. S. MOTOR GASOLINE** | | | |
| New York harbor | 8.25 – 9.00 | 8.25 – 9.00 | 8.50 – 9.00 |
| Philadelphia district | 8.50 – 9.00 | 8.50 – 9.00 | 8.75 – 9.00 |
| Baltimore district | 8.50 – 9.00 | 8.75 – 9.00 | 8.75 – 9.00 |
| **‡DOMESTIC AVIATION GASOLINE** | | | |
| New York harbor | 12.00 –13.00 | 12.00 –13.00 | 12.00 –13.00 |
| Philadelphia | 12.00 | 12.00 | 12.00 |
| Baltimore | 12.00 –12.50 | 12.00 –12 50 | 12.00 –12.50 |
| Boston | 11.50 –13.00 | 11.50 –13.00 | 11.50 –13.00 |
| **WATER WHITE KEROSENE** | | | |
| New York harbor | 6.75 | 6.75 | 6.75 |
| Philadelphia district | 6.50 – 6.75 | 6.50 – 6.75 | 6.50 – 6.75 |
| Baltimore district | 6.75 | 6.75 | 6.75 |
| **GAS OIL: 28-34 Gravity** | | | |
| New York harbor | 4.75 – 5.25 | 4.75 – 5.25 | 4.75 – 5.25 |
| Boston district | 4.75 – 5.00 | 4.75 – 5.00 | 4.75 – 5.00 |
| **FURNACE OIL: 36-40 Gravity** | | | |
| New York harbor | 6.00 – 6.25 | 6.00 – 6.25 | 6.00 – 6.25 |
| Boston district | 6.00 – 6.25 | 6.00 – 6.25 | 6.00 – 6.25 |
| **GRADE C BUNKER OIL (Lighterage 5c per bbl. additional)** | | | |
| New York Harbor | $1.15 | $1.15 | $1.15 |
| Boston district | $1.15 | $1.15 | $1.15 |
| **DIESEL OIL** | | | |
| New York harbor | $2.00 –$2.10 | $2.00 –$2.10 | $2.00 –$2.10 |

‡Prices are based on U. S. Gov't. specifications or better. Present Gov't. specifications require distillation range of 5% recovery at not more than 167°F.; and not less than 122°F.; 50% recovery at 221°; 90% at 311°; 96% at 347°; end point 374° F. Gasoline of fighting grade specifications in some instances sells at a premium over domestic aviation grade. Prices represent majority of quotations.

*Minimum delivered. †Nominal. **Delivered prices.

## New York Export Market

**(Lubricating oils are per gal. in bbls. F.a.s. New York)**

| | Aug. 11 | Aug. 4 | July 28 |
|---|---|---|---|
| **CYLINDER OILS (Pennsylvania Products)** | | | |
| Bright stock, dark | 30.50 –32.00 | 30.50 –32.00 | 30.50 –32.00 |
| 600 D filtered | 26.50 –28.00 | 26.50 –28.00 | 26.50 –28.00 |
| 600 Warren E filtered | 22.50 –25.00 | 22.50 –25.00 | 22.50 –25.00 |
| 600 s.r. unfiltered | 17.00 –18.00 | 17.00 –18.00 | 17.00 –18.00 |
| 650 s.r. unfiltered | 22.50 –24.50 | 22.50 –24.50 | 22.50 –24.50 |
| 600 flash, s.r. | 24.50 –26.50 | 24.50 –26.50 | 24.50 –26.50 |
| 630 flash, s.r. | 33.00 –35.00 | 33.00 –35.00 | 33.00 –35.00 |
| **RED ENGINE OILS (Vis. 100°)** | | | |
| 300 vis. No. 6½ color | 19.00 –21.00 | 19.00 –21.00 | 19.00 –21.00 |
| 250 vis. No. 6 color | 17.50 –18.50 | 17.50 –18.50 | 17.50 –18.50 |
| 200 vis. No. 6 color | 16.00 –17.00 | 16.00 –17.00 | 16.00 –17.00 |
| **PALE ENGINE OILS (Vis. 100°)** | | | |
| 230 vis. No. 3¾ color | 22.00 | 22.00 | 22.00 |
| 180 vis. No. 3¼ color | 17.50 –18.00 | 17.50 –18.00 | 17.50 –18.00 |
| 100 vis. No. 2¼ color | 14.25 –15.50 | 14.25 –15.50 | 14.25 –15.50 |
| **MOTOR OILS (Vis. 100°)** | | | |
| 600 vis. No. 7 color | 30.00 –32.00 | 30.00 –32.00 | 30.00 –32.00 |
| 500 vis. No. 6½ color | 27.50 –30.00 | 27.50 –30.00 | 27.50 –30.00 |
| 400 vis. No. 7¼ color | 26.00 –29.00 | 26.00 –29.00 | 26.00 –29.00 |
| 300 vis. No. 6 color | 22.00 –26.00 | 22.00 –26.00 | 22.00 –26.00 |
| 200 vis. No. 6 color | 21.00 –23.50 | 21.00 –23.50 | 21.00 –23.50 |

## Wax Markets

**(Prices in cents per pound, A.S.T.M. tests. A.M.P. F.a.s. carload lots)**

| NEW YORK | Aug. 11 | Aug. 4 | July 28 |
|---|---|---|---|
| 124-126 Yellow crude scale | 2.125 | 2.125 | 2.125 |
| 122-124 White crude scale | 2.25 | 2.125– 2.25 | 2.125– 2.25 |
| 124-126 White crude scale | 2.25 | 2.125– 2.25 | 2.125– 2.25 |
| 123-125 Fully refined | 3.125 | 3.125 | 3.125 |
| 125-127 Fully refined | 3.25 – 3.375 | 3.25 – 3.375 | 3.25 – 3.375 |
| 128-130 Fully refined | 3.50 – 3.625 | 3.50 – 3.625 | 3.50 – 3.625 |
| 130-132 Fully refined | 3.75 | 3.75 | 3.75 – 4.00 |
| 133-135 Fully refined | 4.50 | 4.50 | 4.50 |
| 135-137 Fully refined | 4.625 | 4.625 | 4.75 |
| **NEW ORLEANS** | | | |
| 124-126 Yellow crude scale | 2.125 | 2.125 | 2.125 |
| 122-124 White crude scale | 2.25 | 2.125– 2.25 | 2.125– 2.25 |
| 124-126 White crude scale | 2.25 | 2.125– 2.25 | 2.125– 2.25 |
| 123-125 Fully refined | 3.125 | 3.125 | 3.125 |
| 125-127 Fully refined | 3.25 | 3.25 | 3.25 |
| 128-130 Fully refined | 3.50 | 3.50 | 3.50 |
| 130-132 Fully refined | 3.75 | 3.75 | 3.75 |
| 133-135 Fully refined | 4.375 | 4.375 | 4.375 |

## Gulf Export Market

**(Prices are f. o. b. Gulf oil terminals in Texas and Louisiana, shipments of 20,000 bbls. or more unless otherwise noted. Bulk gasoline and kerosene prices are posted quotations of the Export Petroleum Assoc., Inc., governing about 90% of the gasoline and kerosene shipped to foreign ports from the Gulf)**

| | Prices Aug. 11 | Prices Aug. 4 | Prices July 28 |
|---|---|---|---|
| **GASOLINE** | | | |
| U. S. Motor | 8.00 | 8.00 | 8.00 |
| 60-62, 400 e.p. | 9.00 | 9.00 | 9.00 |
| 61-63, 390 e.p. | 9.25 | 9.25 | 9.25 |
| 64 66, 375 e.p. | 9.50 | 9.50 | 9.50 |
| U. S. Motor, cases (cargoes) | $1.80 | $1.80 | $1.85 |
| 64-66, cases (cargoes) | $1.875 | $1.90 | $2.00 |
| **KEROSENE** | | | |
| 44 water white | 7.00 | 7.00 | 7.00 |
| 41-43 prime white | 6.00 | 6.00 | 6.00 |
| Water white, cases (cargoes) | $1.60 | $1.60 | $1.75 |
| Prime white, cases (cargoes) | $1.50 | $1.50 | $1.65 |
| **DOMESTIC GAS & BUNKER OILS** | | | |
| *26-30 translucent gas oil | 3.50 – 3.75 | 3.50 – 3.75 | 3.50 – 3.75 |
| *30 plus transiucent gas oil | 3.75 – 4.00 | 3.75 – 4.00 | 3.75 – 4.00 |
| Grade C bunker oil | $1.05 | $1.05 | $1.05 |
| Grade C bunker oil, cargoes | $0.75 –$0.85 | $0.75 –$0.85 | $0.75 –$0.85 |
| **MEXICAN CRUDE AND BUNKER OILS (f. o. b. Steamer, Tampico)** | | | |
| Heavy Panuco crude taxes to be paid | $0.55 –$0.60 | $0.55 –$0.60 | $0.55 –$0.60 |
| Grade C bunker oil for bunkering purposes, taxes paid | $1.00 | $1.00 | $1.00 |
| **SOUTH TEXAS LUBRICATING OILS (Viscosity at 100°F. cold test 0 Tanker, f. o. b. Houston)** | | | |
| 100 vis. No. 2 unfiltered pale | 5.75 – 6.125 | 5.75 – 6.125 | 5.75 – 6.125 |
| 200 vis. No. 3 unfiltered pale | 8.00 – 8.75 | 8.00 – 8.75 | 8.00 – 8.75 |
| 300 vis. No. 3 unfiltered pale | 8.875– 9.50 | 8.875– 9.50 | 8.875– 9.50 |
| 500 vis. No. 3½ unfiltered pale | 10.25 –11.25 | 10.25 –11.25 | 10.25 –11.25 |
| 750 vis. No. 4 unfiltered pale | 12.50 –13.25 | 12.50 –13.25 | 12.50 –13.25 |
| 1200 vis. No. 5 unfiltered pale | 16.00 –18.00 | 16.00 –18.00 | 16.00 –18.00 |
| 200 vis. No. 5-6 red oil | 7.00 – 7.50 | 7.00 – 7.50 | 7.00 – 7.50 |
| 300 vis. No. 5-6 red oil | 8.375– 8.75 | 8.375– 8.75 | 8.375– 8.75 |
| 500 vis. No. 5-6 red oil | 9.25 – 9.50 | 9.25 – 9.50 | 9.25 – 9.50 |
| 750 vis. No. 5-6 red oil | 11.50 | 11.50 | 11.50 |
| 1200 vis. No. 5-6 red oil | 15.00 –15.50 | 15.00 –15.50 | 15.00 –15.50 |

*Less than ½ of 1% sulphur.

## Gulf Domestic Market

**(Prices are f.o.b. Gulf oil terminals in Texas and Louisiana in shipments of 20,000 bbls. or more, representing sellers' opinions, for domestic shipment only.)**

| | Aug. 11 | Aug. 4 | July 28 |
|---|---|---|---|
| U. S. Motor gasoline | 7.00 – 7.25 | 7.00 – 7.25 | 7.00 – 7.25 |
| 41-43 w.w. kerosene | 4.875– 5.125 | 4.875– 5.125 | 4.875– 5.125 |
| *26-32 translucent gas oil | 3.75 – 4.00 | 3.75 – 4.00 | 3.75 – 4.00 |

*Less than ½ of 1% sulphur.

## Pacific Export Market

**(Quotations are at seaboard, Los Angeles, in cargo lots, cents per gallon, except where otherwise noted.)**

| | Aug. 11 | Aug. 4 | July 28 |
|---|---|---|---|
| Gasoline, U. S. Motor, 53-55 Gravity | 6.50 – 7.50 | 6.50 – 7.50 | 6.50 – 7.50 |
| Gasoline, U. S. Motor-blends and special cuts | 7.25 – 8.25 | 7.25 – 8.25 | 7.25 – 8.25 |
| Gasoline, 400 e.p. blends | 8.00 – 9.25 | 8.00 – 9.25 | 8.00 – 9.25 |
| Gas Oil, 30-34, per bbl. | $0.80 –$1.00 | $0.80 –$1.00 | $0.80 –$1.00 |
| Diesel Oil, 27 plus, per bbl. | $0.80 –$0.95 | $0.80 –$0.95 | $0.80 –$0.95 |
| Bunker oil, 14-18, per bbl. | $0.65 –$0.90 | $0.65 –$0.90 | $0.65 –$0.90 |
| Fuel oil, 14-18 per bbl. | $0.60 –$0.85 | $0.60 –$0.85 | $0.60 –$0.85 |
| Kerosene, 38-40 w.w., 125-150 flash, per gal. | 4.50 – 5.50 | 4.50 – 5.50 | 4.50 – 5.50 |
| **Cased Goods** | | | |
| Gasoline, U. S. Motor | $1.75 –$1.85 | $1.75 –$1.85 | $1.75 –$1.85 |
| Gasoline, 400 e.p. | $1.85 –$2.00 | $1.85 –$2.00 | $1.85 –$2.00 |
| Kerosene, 38-40 w.w., 125-150 flash | $1.45 –$1.50 | $1.45 –$1.50 | $1.45 –$1.50 |

**Note:** Above Pacific Export market prices for gasoline and kerosene in cargo lots apply only on goods for coastwise shipment. Gasoline and kerosene prices for shipment to foreign ports are determined as follows: Difference in freight between U. S. Gulf to European Continent and California to European Continent —this difference plus 0.125c for handling, deducted from prices posted at U. S. Gulf by the Export Petroleum Assoc., Inc., which are above prices.

## Tanker Rates

**(Approximate tanker freight rates to Continental ports, in shillings per ton of 2240 pounds, British sterling; to American ports, cents per barrel.)**

| | Aug. 11 Crude &/or Fuel | Aug. 11 Refined Oil &/or Spirits |
|---|---|---|
| Calif. to U. K. or Continental ports* | 27 | 25 |
| Gulf to U. K. or Continental ports* | 15 | 13 |
| North Atlantic to U. K. or Continental ports* | 12/6 | 11/6 |
| Calif. to North Atlantic ports (not E. of N. Y.) | $0.60 | $0.60–$0.65 |
| Gulf to North Atlantic ports (not E. of N. Y.)** | 18 | 22–24 |

*Continental ports in the range between Bordeaux and Hamburg, both inclusive. **Venezuela loading same rate. For Tampico 2c to 3c per bbl. additional.

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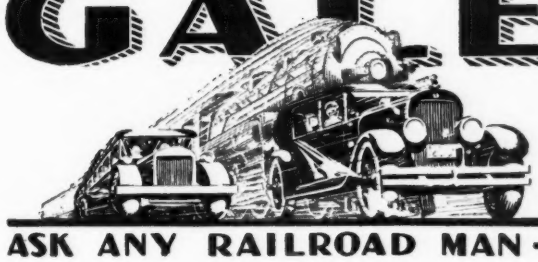

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# Tank Wagon, Service Station Markets for Gasoline and Kerosene

*(OIL PRICE HANDBOOK has t.w. and s.s. markets for a whole year, arranged for quick reference)*

These Prices in Effect Aug. 11, 1930, as Posted by Principal Marketing Companies

## S.O. NEW JERSEY TERRITORY

| | Gasoline T.W. | Tax | Total T.W. | S.S. | Oil T.W. |
|---|---|---|---|---|---|
| Atlantic City, N. J. | 14.5 | 2 | 16.5 | 18.5 | 13.5 |
| Newark, N. J. | 13.5 | 2 | 15.5 | 17.5 | 12.5 |
| Annapolis | 14 | 4 | 18 | 20 | 13 |
| Baltimore, Md. | 13.2 | 4 | 17.2 | 19.2 | 10.5 |
| Cumberland, Md. | 15 | 4 | 19 | 21 | 14 |
| Washington, D. C. | 13.7 | 2 | 15.7 | 17.7 | 12.7 |
| Danville, Va. | 14.8 | 5 | 19.8 | 21.8 | 13.8 |
| Norfolk, Va. | 13.3 | 5 | 18.3 | 20.3 | 11 |
| Richmond, Va. | 11.7 | 5 | 16.7 | 18.7 | 12.7 |
| Roanoke, Va. | 14 | 5 | 19 | 20 | 14 |
| Petersburg, Va. | 14.3 | 5 | 19.3 | 21.3 | 13.3 |
| Charleston, W. Va. | 14.5 | 4 | 18.5 | 20.5 | 12.5 |
| Keyser, W. Va. | 15.1 | 4 | 19.1 | 21.1 | 14.1 |
| Parkersburg, W. Va. | 13.2 | 4 | 17.2 | 19.2 | 11.2 |
| Wheeling, W. Va. | 14.4 | 4 | 18.4 | 20.4 | 12.4 |
| Charlotte, N. C. | 15.3 | 5 | 20.3 | 20.3 | 14.3 |
| Hickory, N. C. | 15.6 | 5 | 20.6 | 22.6 | 14.6 |
| Mt. Airy, N. C. | 15.5 | 5 | 20.5 | 22.5 | 14.5 |
| Salisbury, N. C. | 15.5 | 5 | 20.5 | 20.5 | 14.5 |
| Charleston, S. C. | 13.3 | 6 | 19.3 | 21.3 | 12.3 |
| Columbia, S. C. | 15.2 | 6 | 21.2 | 23.2 | 14.2 |

**Note: 2c per gallon discount off t.w. price of gasoline to dealers and commercial consumers thru S. O. New Jersey territory.**

## CONTINENTAL OIL

| | | | | |
|---|---|---|---|---|
| Denver, Colo. | 12 | 4 | 16 | 19 | 15.5 |
| Pueblo, Colo. | 13 | 4 | 17 | 20 | 15.5 |
| Grand Junc., Colo. | 17.5 | 4 | 21.5 | 24.5 | 19 |
| Casper, Wyo. | 15 | 4 | 19 | 22 | 14 |
| Cheyenne, Wyo. | 16.5 | 4 | 20.5 | 23.5 | 15.5 |
| Butte, Mont. | 19.5 | 5 | 24.5 | *23 | 20 |
| Helena, Mont. | 19.5 | 5 | 24.5 | 27.5 | 20 |
| Salt Lake City, Utah. | 16.5 | 3½ | 20 | 23 | 17 |
| Boise, Ida. | 18.5 | 5 | 23.5 | 26.5 | 19 |
| Twin Falls, Ida. | 18.5 | 5 | 23.5 | 27.5 | 19 |
| Albuquerque, N. M. | 11 | 5 | 16 | 20 | 15 |

*4½c discount to dealers at Butte.

## S. O. CALIFORNIA

| | Gasoline Tax | Posted Retail Price | Posted Wholesale | Oil T.W. |
|---|---|---|---|---|
| Phoenix, Ariz. | 4 | 17 | 20 | 20 |
| Los Angeles, Cal. | 3 | 19.5 | 21.5 | 15.5 |
| Fresno, Cal. | 3 | 20 | 22 | 17 |
| San Francisco, Cal. | 3 | 20 | 22 | 15.5 |
| Reno, Nev. | 4 | 25 | 27 | 19 |
| Portland, Ore. | 4 | 21.5 | 23.5 | 16.5 |
| Seattle, Wash. | 3 | 20.5 | 22.5 | 16.5 |
| Spokane, Wash. | 3 | 24.5 | 26.5 | 20.5 |
| Tacoma, Wash. | 3 | 20.5 | 22.5 | 16.5 |

**Note: 6c per gal. discount to dealers off posted wholesale price of gasoline to customers taking tank truck delivery, thru S. O. California territory except 1c discount at Phoenix to dealers only. This discount determines net t.w. price.**

## S. O. LOUISIANA

| | Gasoline T.W. | Tax | Total T.W. | S.S. | Oil T.W. |
|---|---|---|---|---|---|
| Little Rock, Ark. | 12 | 5 | 17 | 17 | 12 |
| Alexandria, La. | 12.5 | *5 | 17.5 | 18 | †13 |
| Baton Rouge, La. | 11.5 | 4 | 15.5 | 16 | †13 |
| Lake Charles, La. | 12.5 | *5 | 17.5 | 18 | †13 |
| New Orleans, La. | 9.5 | *5 | 14.5 | 14.5 | †12 |
| Shreveport, La. | 11.5 | 4 | 15.5 | 17.5 | †13 |
| Lafayette, La. | 12.5 | *5 | 17.5 | 18 | †13 |
| Bristol, Tenn. | 14.5 | 5 | 19.5 | 21.5 | 14 |
| Chattanooga, Tenn. | 14.5 | 5 | 19.5 | 20 | 13 |
| Knoxville, Tenn. | 14.5 | 5 | 19.5 | 20 | 15 |
| Nashville, Tenn. | 13.5 | 5 | 18.5 | 19 | 15 |
| Memphis, Tenn. | 12 | 5 | 17 | 17 | 12.5 |

**Note: 2c per gallon discount off t.w. price of gasoline to dealers thru S. O. Louisiana territory.**

*Lake Charles, Alexandria, New Orleans and Lafayette gasoline tax includes 4c state tax and 1c parish tax. New Orleans kerosene price includes 1c parish tax in addition to 1c state tax.

†Kerosene price in Louisiana includes 1c state tax.

## S. O. KENTUCKY

| | | | | | |
|---|---|---|---|---|---|
| Ashland, Ky. | 14 | 5 | 19 | 21 | 15 |
| Catlettsburg, Ky. | 14 | 5 | 19 | 21 | 15 |
| Lexington, Ky. | 14 | 5 | 19 | 20 | 14.5 |
| Louisville, Ky. | 13 | 5 | 18 | 20 | 13 |
| Covington, Ky. | 16 | 5 | 21 | 22 | 14.5 |
| Clarksdale, Miss. | 14 | 5 | 19 | 21 | 12.5 |
| Gulfport, Miss.†† | 15.5 | 5 | 20.5 | 22.5 | 13 |
| Jackson, Miss. | 12 | 5 | 17 | 19 | 13 |
| Natchez, Miss. | 14 | 5 | 19 | 21 | 13 |
| Vicksburg, Miss. | 14 | 5 | 19 | 21 | 13 |
| Birmingham, Ala.‡‡ | 12 | 4 | 16 | 18 | 14.5 |
| Mobile, Ala.‡ | 14 | 4 | 18 | 18 | 13.5 |
| Montgomery, Ala.* | 15 | 4 | 19 | 21 | 15 |
| Atlanta, Ga. | 13 | 6 | 19 | 21 | †14.5 |
| Augusta, Ga. | 16 | 6 | 22 | 24 | †15.5 |
| Macon, Ga. | 14 | 6 | 20 | 22 | †14 |
| Savannah, Ga. | 14 | 6 | 20 | 22 | †14 |
| Jacksonville, Fla. | 13 | 6 | 19 | 21 | 14 |
| Miami, Fla. | 15 | 6 | 21 | 23 | 14 |
| Tampa, Fla. | 14 | 6 | 20 | 22 | 13 |
| Pensacola, Fla.** | 13 | 6 | 19 | 19 | 13.5 |

**Note: Net price of gasoline to dealers is 2c under posted t.w. price thru S. O. Kentucky territory.**

*Local privilege tax of 1 cent on gasoline and ½ cent on kerosene at Montgomery included.

†Georgia kerosene prices include 1c state tax.

**Both tank wagon prices include 1c city tax at Pensacola which went into effect Oct. 15, 1926.

††Both tank wagon prices at Gulfport include Harrison county privilege tax of 2c.

‡Mobile gasoline prices include 1c city tax.

‡‡Birmingham gasoline prices include 1c city tax.

## S. O. NEBRASKA

| | | | | | |
|---|---|---|---|---|---|
| Omaha, Neb. | 15.25 | 4 | 19.25 | 19.25 | 13.25 |
| McCook | 16.75 | 4 | 20.75 | 22.75 | 14.75 |
| Norfolk | 15.75 | 4 | 19.75 | 21.75 | 13.75 |
| North Platte | 16.75 | 4 | 20.75 | 22.75 | 14.50 |
| Scottsbluff | 13 | 4 | 17 | 17 | 14.25 |

**Note: Discounts: 1c per gal. off tank wagon price of gasoline for 1,000 gallon dumps per month to consumers taking tank wagon delivery only.**

## Latest Changes in Tank Wagon Prices

**Gasoline**

**S. O. Ohio**—T. w. cut 1c, s. s. 2c, Auglaize, Fulton and Hardin counties, and Washington, Spring Creek, Concord, and Stauton townships, including Piqua in Miami county, both to 19c, **Aug. 7.**

T. w. up 1c, s. s. 2c, Amboy and Royalton townships in Fulton county, to statewide prices of 20c and 21c, **Aug. 12.**

**Atlantic Refining**—T. w. only cut 1c, Jacksonville, to 19c, **July 30.**

**S. O. Indiana**—The Q. D. A. for the territory was revised, except Chicago and Detroit unchanged, **Aug. 5.** Those companies taking over 500 gals. per month get 3c off s. s. price and those taking over 75,000 gals. per month get 4.5c off s. s. price.

**S. O. Louisiana**—T. w. cut 0.5c s. s. 2.5c, Memphis, both to 17c, **Aug. 5.**

**Continental Oil**—T. w. and s. s. cut 2c, Albuquerque, to 18c and 22c, **Aug. 2.**

T. w. and s. s. cut 2c, Albuquerque, to 16c and 20c, **Aug. 9.**

Aviation gasoline up 2c, Boise, to 26.5c t. w., **July 14.**

## S. O. INDIANA

| | Gasoline T.W. | Tax | Total T.W. | S.S. | Oil T.W. |
|---|---|---|---|---|---|
| Chicago, Ill. | 15 | 3 | 18 | 19 | 13 |
| Decatur, Ill. | 15.2 | 3 | 18.2 | 19.2 | 13.1 |
| E. St. Louis, Ill. | 14.4 | 3 | 17.4 | 18.4 | 12.2 |
| Joliet, Ill. | 15.4 | 3 | 18.4 | 19.4 | 13.3 |
| Peoria, Ill. | 15.2 | 3 | 18.2 | 19.2 | 13.1 |
| Quincy, Ill. | 15.2 | 3 | 18.2 | 19.2 | 12.9 |
| Indianapolis, Ind. | 15.2 | 4 | 19.2 | 20.2 | 14.2 |
| Evansville, Ind. | 15 | 4 | 19 | 20 | 14 |
| South Bend, Ind. | 15.4 | 4 | 19.4 | 20.4 | 14.4 |
| Detroit, Mich. | 15.8 | 3 | 18.8 | 19.8 | 14.7 |
| Grand Rapids, Mich. | 15.7 | 3 | 18.7 | 19.7 | 14.6 |
| Saginaw, Mich. | 15.9 | 3 | 18.9 | 19.9 | 14.8 |
| Green Bay, Wisc. | 15.6 | 2 | 17.6 | 18.6 | 13.4 |
| Madison, Wisc. | 15.3 | 2 | 17.3 | 18.3 | 13.1 |
| Milwaukee, Wisc. | 15.1 | 2 | 17.1 | 18.1 | 12.9 |
| La Cross, Wisc. | 16.2 | 2 | 18.2 | 19.2 | 14 |
| Minneapolis, Minn. | 16.2 | 3 | 19.2 | 20.2 | 13.9 |
| Duluth, Minn. | 16.5 | 3 | 19.5 | 20.5 | 13.9 |
| Mankato, Minn. | 16.1 | 3 | 19.1 | 20.1 | 13.7 |
| Des Moines, Ia. | 15.5 | 3 | 18.5 | 19.5 | 13.3 |
| Davenport, Ia. | 15.5 | 3 | 18.5 | 19.5 | 13.3 |
| Sioux City, Ia. | 15.1 | 3 | 18.1 | 19.1 | 12.9 |
| Mason City, Ia. | 15.5 | 3 | 18.5 | 19.5 | 13.3 |
| St. Louis, Mo. | *14.9 | 2 | 16.9 | 17.9 | 12.3 |
| Kansas City, Mo. | †15.9 | 2 | 17.9 | 18.9 | 11.6 |
| St. Joseph, Mo. | †15.5 | 2 | 17.5 | 18.5 | 12.2 |
| Fargo, N. D. | 17.9 | 3 | 20.9 | 21.9 | 15.9 |
| Grand Forks, N. D. | 18.2 | 3 | 21.2 | 22.2 | 16.2 |
| Minot, N. D. | 17.9 | 3 | 20.9 | 21.9 | 15.9 |
| Pierre, S. D. | 16 | 4 | 20 | 21 | 14.4 |
| Huron, S. D. | 16.3 | 4 | 20.3 | 21.3 | 14.7 |
| Wichita, Kans. | 13.8 | 3 | 16.8 | 14.8 | 11.8 |
| Bartlesville, Okla. | 13.5 | 4 | 17.5 | 20.5 | 11.5 |

S. O. Indiana's quantity contract price schedule thru territory (except in Chicago and Detroit, which see below) on tank truck deliveries of gasoline, figured from the service station price is 3c for 500 gal or more a month; and 4½c for 75,000 gals. or more a month.

In Chicago and vicinity, these discounts apply: Over 500 gals. per month, 4c per gal. off service station price; over 1,000 gals. per month, 5c per gal. off service station price.

In Detroit, dealers and consumers signing contract for all gasoline for one year, get 4c per gal. off s.s. price. Non-contracted accounts get 3c off s.s. price. Those buying 75,000 gals. or more a month, 4½c per gal. off s.s. price.

*Includes city tax of ½c.

†Includes city tax of 1c.

## S. O. OHIO

| | | | | |
|---|---|---|---|---|
| **Ohio State wide** | 16 | 4 | 20 | 21 | †14 |
| Allen, Auglaize, Butler, Franklin, Fulton, Hardin, Hancock, and Preble Counties: | 15 | 4 | 19 | 19 | 14 |

**Note:** Discount to dealers and commercial accounts generally thru Ohio is 2c per gal. off t.w. price with some exceptions. In counties where prices are below normal, discount is 3c per gal. off t.w. price.

†Kerosene t.w. price in Paulding County is 12c; in Allen and Van Wert Counties, 13c.

## MAGNOLIA PETROLEUM

| | | | | | |
|---|---|---|---|---|---|
| Muskogee, Okla. | 12 | 4 | 16 | 19 | 9 |
| Oklahoma City. | 11 | 4 | 15 | 18 | 10 |
| Tulsa, Okla. | 12 | 4 | 16 | 20 | 10 |
| Fort Smith, Ark.† | 10 | †4 | 14 | 15 | 12 |
| Little Rock, Ark. | 12 | 5 | 17 | 17 | 12 |
| Texarkana, Ark.* | 13 | 4 | 17 | 17 | 12 |
| Dallas, Tex. | 10 | 4 | 14 | 18 | 12 |
| Fort Worth, Tex. | 10 | 4 | 14 | 17 | 11 |
| Houston, Tex. | 11 | 4 | 15 | 19 | 11 |
| San Antonio, Tex. | 9 | 4 | 13 | 17 | 11 |
| El Paso, Tex. | 12 | 4 | 16 | 20 | 13 |

*Within city of Texarkana, the state tax on gasoline is 4c per gal. conforming with the Texas state tax. In this district outside of the city the 5c Arkansas tax applies.

†Within city of Fort Smith, Oklahoma tax of 4c applies. In this district outside of the city, the 5c Arkansas tax applies.

## S. O. NEW YORK

Due to local price conditions at many points in S. O. New York territory, actual prices on both gasoline and kerosene are being made at under the posted tank wagon prices published below.

| | | | | | |
|---|---|---|---|---|---|
| Greater New York City: Boroughs of Manhattan, Bronx, Queens & Kings | 14.3 | 2 | 16.3 | 18.3 | 11.3 |
| Borough of Richmond | 14.7 | 2 | 16.7 | 18.7 | 11.7 |
| Albany, N. Y. | 15.6 | 2 | 17.6 | 19.6 | 12.6 |
| Buffalo, N. Y. | 14.8 | 2 | 16.8 | 18.8 | 11.8 |
| Rochester, N. Y. | 15 | 2 | 17 | 19 | 12 |
| Syracuse, N. Y. | 15.8 | 2 | 17.8 | 19.8 | 12.8 |
| Boston, Mass. | 14.5 | 2 | 16.5 | 18.5 | 11.5 |

Above prices include these inspection fees on both gasoline and kerosene, per gallon: Alabama, 1/40c on gasoline, 1/2c kerosene; Arkansas, 1/20c on both; Florida, 1/8c on both; Illinois, 3/100c on both; Indiana, 4/25c to 1/2c on both; Kansas, 3/50c on both; Louisiana, 1/32c on gasoline; Minnesota, 3/50c on both; Missouri, 3/10c to 1/2c on both; Nebraska, 3/100c on both; North Carolina, 1/4c on both; North Dakota, 1/20c on both; Oklahoma, 4/25c on both; South Carolina, 1/8c on both; South Dakota, 1/10c on both; Tennessee, 2/5c on gasoline and 1/2c to 4/5c on kerosene; Wisconsin, 3/50c on both.

Kerosene inspection fees only, per gallon; Iowa 7/100c; Michigan 1/5c to 4/5c per gal.

# Tank Wagon, Service Station Markets for Gasoline and Kerosene

Prices in Effect Aug. 11, 1930

## S. O. NEW YORK

| | Gasoline Total T.W. | Tax | T.W. | S.S. | Oil T.W. |
|---|---|---|---|---|---|
| Augusta, Me. | 15.8 | 4 | 19.8 | 21.8 | 12 8 |
| Manchester, N. H. | 15.4 | 4 | 19.4 | 21 4 | 12.4 |
| Burlington, Vt. | 16.3 | 4 | 20.3 | 22.3 | 13.3 |
| New Haven, Conn. | 15.6 | 2 | 17.6 | 19.6 | 12.6 |
| Providence, R. I. | 14.7 | 2 | 16.7 | 18.7 | 11.7 |

**Note:** S. O. New York allows 3c off t.w. price to dealers in New York City, and 2c off t.w. price thru rest of territory.

## ATLANTIC REFINING

| | | | | | |
|---|---|---|---|---|---|
| Pittsburgh, Pa. | 16 | * | 16 | 21 | 13 |
| Philadelphia, Pa. | 16 | * | 16 | 21 | 13 |
| Allentown, Pa. | 16 | * | 16 | 21 | 13 |
| Erie, Pa. | 15 | * | 15 | 18 | 13 |
| Scranton, Pa. | 16 | * | 16 | 21 | 13 |
| Altoona, Pa. | 16 | * | 16 | 21 | 13 |
| Dover, Del. | 16 | 3 | 19 | 21 | 13 |
| Wilmington, Del. | 16 | 3 | 19 | 21 | 13 |
| Boston, Mass. | 14.5 | 2 | 16.5 | 18.5 | 11.5 |
| Springfield, Mass. | 15.5 | 2 | 17.5 | 19.5 | 12.5 |
| Worcester, Mass. | 15.3 | 2 | 17.3 | 19.3 | 12.3 |
| Fall River, Mass. | 14.1 | 2 | 16.1 | 17.1 | 12.1 |
| Providence, R. I. | 14.7 | 2 | 16.7 | 18.7 | 11 7 |
| Hartford, Conn. | 15.5 | 2 | 17.5 | 19.5 | 12.5 |
| New Haven, Conn. | 15.6 | 2 | 17.6 | 19.6 | 12.6 |
| Atlantic City, N. J. | 14.5 | 2 | 16.5 | 18.5 | 13.5 |
| Camden, N. J. | 13.6 | 2 | 15.6 | 17.6 | 12.6 |
| Trenton, N. J. | 14 | 2 | 16 | 18 | 13 |
| Annapolis, Md. | 14 | 4 | 18 | 20 | 13 |
| Baltimore, Md. | 13.2 | 4 | 17.2 | 19.2 | 10.5 |
| Hagerstown, Md. | 14.7 | 4 | 18.7 | 20.7 | 13.7 |
| Richmond Va. | 13.7 | 5 | 18.7 | 20.7 | 12.7 |
| Wilmington, N. C. | 13.4 | 5 | 18.4 | 20.4 | 12.4 |
| Brunswick, Ga. | 15 | 6 | 21 | 23 | **15 |
| Jacksonville, Fla. | 13 | 6 | 19 | 21 | 14 |

**Note: 2c per gal. discount off t.w. price of gasoline on sales to dealers; discount to commercial accounts under contract for one year in accordance with Code of Ethics. Erie has dealer discount of 4c off t.w. price, effective May 28.**

*3-cent state tax is collected by retail dealer and paid by him directly to state.

**Georgia kerosene prices include 1c state tax.

## V. M. & P. NAPHTHA

(Changes ordinarily occur coincident with gasoline price changes)

| | Oleum Sprits | V.M.&P. Naphtha | Cleaner Naphtha |
|---|---|---|---|
| Chicago | 14.7 | 16.7 | 17 |
| Detroit | 17.4 | 18.9 | 20.7 |
| Kansas City | †15.9 | †17.4 | †19.2 |
| Milwaukee | 16.4 | *19.9 | *21.7 |
| Minneapolis | **20.7 | **22.2 | **24 |
| St. Louis | 13.9 | 17.1 | 18.9 |
| New York | | 16 | 23 |
| Boston | | 19 | 23 |

*Includes 2c state tax. †Includes 1c city tax.
**Includes 3c state tax.

### Petroleum Spirits (Solvent)

**Tank Cars (F.o.b. refinery or seaboard terminal)**

| | |
|---|---|
| New York harbor | 11 00 |
| Philadelphia district | 11.00 |
| Providence | 11.50 |

**Tank Wagon or Steel Barrels**

| | |
|---|---|
| New York City | 15–16 |
| Syracuse | 17–18 |
| Rochester | 18 |
| Buffalo | 17–18 |
| Providence | 18–19 |
| Boston | 19 |
| Bridgeport | 16–18 |
| Newark | 16–18 |
| Philadelphia | 16–17 |
| Baltimore | 18 |

**Note: 2c off above t.w. prices to large buyers in some instances.**

## CANADA

(Per Imperial Gallon, which is 1.2 American Gallons)

| ONTARIO | Gasoline Total T.W. | Tax | T.W. | S.S. | Oil T.W. |
|---|---|---|---|---|---|
| Toronto | 19.5 | 5 | 24.5 | 28 | 20.5 |
| Ottawa | 19.5 | 5 | 24.5 | 28 | 20.5 |
| North Bay | 22.5 | 5 | 27.5 | 33 | 27 |
| Ft. William | 22.5 | 5 | 27.5 | 31 | 22.5 |
| Border Cities, including Windsor | 18.5 | 5 | 23.5 | 27 | 19.5 |
| **MANITOBA** | | | | | |
| Winnipeg | 21 | 5 | 26 | 30 | 21.5 |
| **SASKATCHEWAN** | | | | | |
| Regina | 26 | 5 | 31 | 35 | 26 |
| **ALBERTA** | | | | | |
| Edmonton | 27.5 | 5 | 32.5 | 36 | 27.5 |
| Calgary | 23.5 | 5 | 28.5 | 32 | 23.5 |
| **BRITISH COLUMBIA** | | | | | |
| Vancouver | 23 | 5 | 28 | 32 | 24 |
| **QUEBEC** | | | | | |
| Montreal | 20.5 | 5 | 25.5 | 29 | 21.5 |
| Quebec City | 21.5 | 5 | 26.5 | 30 | 22 5 |
| Three Rivers | 21.5 | 5 | 26.5 | 30 | 22.5 |
| **NEW BRUNSWICK** | | | | | |
| St John | 20 | 5 | 25 | 29 | 22 |
| Moncton | 20 | 5 | 25 | 29 | 22 |
| **NOVA SCOTIA** | | | | | |
| Halifax | 20 | 5 | 25 | 29 | 22 |
| **PRINCE EDWARD ISLAND** | | | | | |
| Charlottetown | 20 | 5 | 25 | 29 | 22 |

Note. In districts surrounding these points 1c additional is added to city price.

## Aviation Gasoline Prices

Following are tank wagon prices of aviation gasoline in principal marketing territories showing state and municipal taxes:

### S. O. NEW JERSEY

**Prices in Effect Aug. 11, 1930**

| | T.W | Tax | Total |
|---|---|---|---|
| Newark, N. J. | 17 | 4 * | 17 4 |
| Baltimore, Md. | 16 | 2 4 | 20 2 |
| Washington D. C.† | 19.5 | 2 | 21.5 |

*New Jersey road tax of 2c does not apply on aviation gasoline, exemption being claimed at time of purchase.

†Price at Washington is on Stanavo Aviation gasoline which sells at a 2c premium over "Standard" aviation gasoline.

### S. O. OHIO

| | | | |
|---|---|---|---|
| Thru Ohio | 17 | 4 | 21 |

Discounts given by S. O. Ohio: For airport delivery only: 2,000 gals. or over per month, 1c per gal.; 6,000 gals. or over per month, 2c; 12,000 gals. and over per month, 3c.

### S. O. INDIANA

| | | | |
|---|---|---|---|
| Chicago | 17 | 3 | 20 |
| Indianapolis, Ind. | 17.2 | 4 | 21.2 |
| Detroit Mich. | 17.8 | 3 | 20 8 |
| Milwaukee, Wis. | 17 1 | 2 | 19.1 |
| Minneapolis, Minn. | 18 2 | 3 | 21 2 |
| St Louis, Mo. | 16 4 | 2½ | 18 9 |
| Kansas City, Mo. | 16.9 | 3 | 19 9 |
| Fargo, N D. | 19.9 | 3 | 22.9 |
| Huron, S D. | 18 3 | 4 | 22.3 |
| Wichita, Kan. | 15.8 | 3 | 18 8 |

In S O Indiana territory, buyer pays state and city taxes on aviation gasoline, and if he can get a refund from the state, he does so. St. Louis tax of 2½c includes ½c city tax and Kansas City tax includes 1c city tax.

### S. O. LOUISIANA

| | | | |
|---|---|---|---|
| New Orleans, La. | 16 | 5 | 21 |
| Nashville, Tenn. | 18 | 5 | 23 |
| Memphis, Tenn. | 17 | 5 | 22 |

2c per gal discount off above t.w. prices to dealers and commercial consumers.

### S. O. NEBRASKA

| | | | |
|---|---|---|---|
| Omaha | 18 25 | 4 | 22.25 |

2c per gal. refund to resellers.

### CONTINENTAL OIL CO.

| | | | |
|---|---|---|---|
| *Denver, Col. | 15 | 4 | 19 |
| Cheyenne, Wyo. | 19.5 | 4 | 23.5 |
| Helena, Mont. | 25 5 | 5 | 30.5 |
| Salt Lake City, Utah | 19.5 | 3.5 | 23 |
| †Albuquerque, N. M. | 19 | 5 | 24 |
| Boise, Ida | 21.5 | 5 | 26 5 |

*1c per gal. discount to dealers at Denver. †2c per gal. discount to dealers at Albuquerque.

### S. O. CALIFORNIA

| | | | |
|---|---|---|---|
| Phoenix, Ariz. | 17 | 4 | 21 |
| Los Angeles, Cal. | 19.5 | 3 | 22.5 |
| San Francisco, Cal. | 20 | 3 | 23 |
| Reno, Nev. | 24 | 4 | 28 |
| Portland, Ore. | 19.5 | 4 | 23 5 |
| Seattle, Wash. | 19.5 | 3 | 22 5 |
| Spokane, Wash. | 23.5 | 3 | 26 5 |

4c per gal. discount off t.w. price of gasoline to customers taking tank truck delivery, through S O California territory, except 1c discount at Phoenix.


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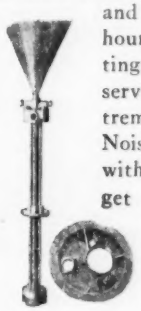

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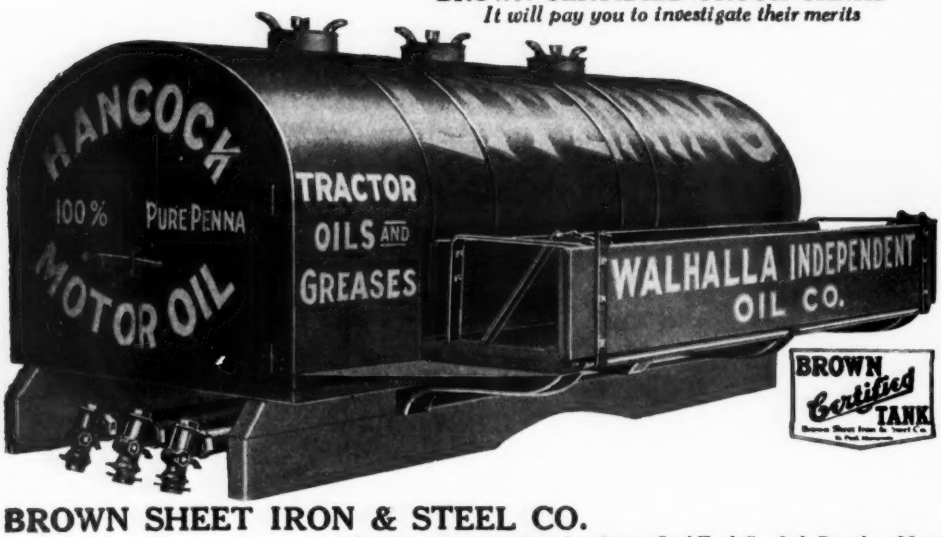


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Other equipment on which you may send prices.....

Name.....Address.....

# Crude Oil Prices (in Effect Aug. 11, 1930)

*(Crude prices for the whole year in OIL PRICE HANDBOOK published annually)*

### EASTERN FIELDS

**(Posted by Joseph Seep Purchasing Agency)**

(All Penna. Grade Crude Effective July 11, 1930)

| | |
|---|---|
| Bradford crude in Bradford Transit Co. and New York Transit lines | $2.10 |
| Bradford—Alleghany district (posted by Tide Water Pipe Co., Ltd.) | 2.15 |
| Penna. Grade Oil in National Transit Lines (Other Pennsylvania) | *2.05 |
| Penna. Grade Oil in Southwest Penna. Pipe Lines (Other Pennsylvania) | 2.00 |
| Penna. Grade Oil in Eureka Pipe Lines (West Virginia) | 1.90 |
| Penna. Grade Oil in Buckeye Pipe Lines (Macksburg, O. district) | 1.75 |
| Wayne district crude in Cumberland lines (West Virginia) (Effective July 23, 1930) | 1.17 |
| Corning Grade in Buckeye Pipe Lines (Ohio) (Effective July 19, 1930) | 1.50 |
| Somerset Oil in Cumberland Pipe Lines (Kentucky) (Effective July 23, 1930) | 1.30 |
| Somerset Oil in Eureka Pipe Lines (Effective July 23, 1930) | 1.14 |
| Ragland Grade in Cumberland Pipe Lines (Kentucky) (Effective Jan. 29, 1929) | $0.60 |

*Oil run prior to July 1, 1929 is $2.00 per bbl.

**(Posted by Stoll Oil Refining Co.)**

| | |
|---|---|
| Oil City, Ky., oil in Stoll lines (Effective July 25, 1930) | $1.35 |

### MICHIGAN

**(Posted by Dixie Oil Co.)**

Traverse and Dundee (Muskegon), effective April 16, 1930, same gravity and price schedule as Prairie posts in Oklahoma and Kansas, which see below.

**(Posted by Pure Oil Co.)**

| | |
|---|---|
| Midland, Midland County (July 19, 1930) | $1.45 |

### CENTRAL STATES FIELDS

**Posted by Ohio Oil Co.**

| | | | |
|---|---|---|---|
| Wooster | $1.70 | Princeton | $1.65 |
| Lima | 1.55 | Illinois | 1.65 |
| Waterloo | 1.20 | Plymouth | 1.23 |
| Indiana | 1.32 | West Kentucky | 1.55 |

### CANADIAN CRUDE

**Posted by Imperial Oil Refineries, Ltd.**

| | |
|---|---|
| Petrolia | $1.95 |
| Oil Springs | 2.02 |

### OKLAHOMA, KANSAS and NORTH TEXAS

**Prices of Prairie Oil & Gas Co.**

**(In Oklahoma and Kansas)**

Effective Apr. 10, 1930

| | | | |
|---|---|---|---|
| Below 25 | $0.75 | 35-35.9 | $1.255 |
| 25-25.9 | 0.80 | 36-36.9 | 1.29 |
| 26-26.9 | 0.85 | 37-37.9 | 1.325 |
| 27-27.9 | 0.90 | 38-38.9 | 1.36 |
| 28-28.9 | 0.95 | 39-39.9 | 1.395 |
| 29-29.9 | 1.00 | 40-40.9 | 1.43 |
| 30-30.9 | 1.05 | 41-41.9 | 1.465 |
| 31-31.9 | 1.10 | 42-42.9 | 1.50 |
| 32-32.9 | 1.15 | 43-43.9 | 1.535 |
| 33-33.9 | 1.185 | 44 and above | 1.57 |
| 34-34.9 | 1.22 | | |

**(In North Texas: Ranger, Wichita Falls, Mexia)**

Effective Apr. 10, 1930

| | | | |
|---|---|---|---|
| Below 25 | $0.72 | 30-30.9 | $1.02 |
| 25-25.9 | 0.77 | 31-31.9 | 1.07 |
| 26-26.9 | 0.82 | 32-32.9 | 1.12 |
| 27-27.9 | 0.87 | 33-33.9 | 1.17 |
| 28-28.9 | 0.92 | 34-34.9 | 1.22 |
| 29-29.9 | 0.97 | 35-35.9 | 1.255 |
| 36-36.9 | $1.29 | 41-41.9 | $1.465 |
| 37-37.9 | 1.325 | 42-42.9 | 1.50 |
| 38-38.9 | 1.36 | 43-43.9 | 1.535 |
| 39-39.9 | 1.395 | 44 and above | 1.57 |
| 40-40.9 | 1.43 | | |

The Texas Co., same schedule in Oklahoma as Prairie in Oklahoma; and in North Texas, North Central Texas and Central Texas same as Prairie and Humble in North Texas, effective Apr. 10.

**Humble Oil & Refining Co. Prices**

(Ranger, North Texas, Mexia, Powell, Boggy Creek, Richland, Wortham, Lytton Springs, Currie, Moran and Nocona crudes all in Texas.)

Humble's prices in above fields same as Prairie's prices in North Texas, effective Apr. 10, which see.

**Magnolia Petroleum Co.**

(In Oklahoma, Kansas and North and East Central Texas)

| | | | |
|---|---|---|---|
| Below 26 | $0.70 | 28-28.9 | $0.88 |
| 26-26.9 | 0.76 | 29-29.9 | 0.95 |
| 27-27.9 | 0.82 | 30-30.9 | 1.02 |

Rest of Magnolia schedule up to 44 and above same as Prairie in Oklahoma and Kansas.

Apr. 10, 1930, Glasscock, Crane, Upton, Winkler, Howard and Mitchell Counties same prices as Humble's postings in Winkler, Crane, etc., which see

| | |
|---|---|
| Corsicana heavy | $0.80 |
| Luling | 0.85 |
| Mirando | 0.85 |
| Darst Creek, 60° F. gravity | 1.15 |

**Carter Oil Co.**

(Oklahoma and Kansas)

Apr. 10, 1930, same schedule as Prairie, which see.

### PANHANDLE TEXAS

**Humble Oil & Refining Co.**

Effective Apr. 10, 1930

Hutchinson and Carson Counties:

| | | | |
|---|---|---|---|
| Below 32 | $0.775 | 38-38.9 | $1.065 |
| 32-32.9 | 0.825 | 39-39.9 | 1.10 |
| 33-33.9 | 0.875 | 40-40.9 | 1.135 |
| 34-34.9 | 0.925 | 41-41.9 | 1.17 |
| 35-35.9 | 0.96 | 42-42.9 | 1.205 |
| 36-36.9 | 0.995 | 43-43.9 | 1.24 |
| 37-37.9 | 1.03 | 44 and above | 1.275 |

Gray County:

| | | | |
|---|---|---|---|
| Below 29 | $0.755 | 37-37.9 | $1.16 |
| 29-29.9 | 0.805 | 38-38.9 | 1.195 |
| 30-30.9 | 0.855 | 39-39.9 | 1.23 |
| 31-31.9 | 0.905 | 40-40.9 | 1.265 |
| 32-32.9 | 0.955 | 41-41.9 | 1.30 |
| 33-33.9 | 1.005 | 42-42.9 | 1.335 |
| 34-34.9 | 1.055 | 43-43.9 | 1.37 |
| 35-35.9 | 1.09 | 44 and above | 1.405 |
| 36-36.9 | 1.125 | | |

Wheeler County: Posted by Magnolia Pet. Co. Humble withdrew Wheeler county postings Apr. 10.

| | | | |
|---|---|---|---|
| Below 30 | $0.755 | 37-37.9 | $1.11 |
| 30-30.9 | 0.805 | 38-38.9 | 1.145 |
| 31-31.9 | 0.855 | 39-39.9 | 1.18 |
| 32-32.9 | 0.905 | 40-40.9 | 1.215 |
| 33-33.9 | 0.955 | 41-41.9 | 1.25 |
| 34-34.9 | 1.005 | 42-42.9 | 1.285 |
| 35-35.9 | 1.04 | 43-43.9 | 1.32 |
| 36-36.9 | 1.075 | 44 and above | 1.355 |

Above prices met by The Texas Co. and Magnolia on Apr. 10.

### WEST TEXAS AND NEW MEXICO

**Humble Oil & Refining Co.**

Effective Apr. 10, 1930

Winkler, Crane, Upton, Crockett, Ector, and Pecos Counties, also Lea County, N. Mex.

| | | | |
|---|---|---|---|
| Below 25 | $0.65 | 31-31.9 | $0.86 |
| 25-25.9 | 0.68 | 32-32.9 | 0.89 |
| 26-26.9 | 0.71 | 33-33.9 | 0.92 |
| 27-27.9 | 0.74 | 34-34.9 | 0.95 |
| 28-28.9 | 0.77 | 35-35.9 | 0.98 |
| 29-29.9 | 0.80 | 36 and above | 1.01 |
| 30-30.9 | 0.83 | | |

Howard and Glasscock counties:

Effective Apr. 10, 1930

| | | | |
|---|---|---|---|
| Below 25 | $0.65 | 31-31.9 | $0.82 |
| 25-25.9 | 0.68 | 32-32.9 | 0.84 |
| 26-26.9 | 0.71 | 33-33.9 | 0.86 |
| 27-27.9 | 0.74 | 34-34.9 | 0.88 |
| 28-28.9 | 0.76 | 35-35.9 | 0.90 |
| 29-29.9 | 0.78 | 36 and above | 0.92 |
| 30-30.9 | 0.80 | | |

Apr. 10, 1930, The Texas Co. posted same prices in Crane, Upton, Winkler and Lea counties as Humble.

### SOUTH AND SOUTHWEST TEXAS

**(Posted by Humble Oil & Refining Co.)**

Effective Apr. 10, 1930

| | |
|---|---|
| Mirando | $0.85 |
| Salt Flat | 1.15 |
| Darst Creek | 1.15 |
| Pettus, Bee County | 1.40 |

### NORTH LOUISIANA—ARKANSAS FIELDS

**Prices of Standard Oil Co. of Louisiana**

Caddo, Homer, Haynesville, Bull Bayou, El Dorado, Crichton, De Soto, and Sabine.

Effective Apr. 11, 1930

| | | | |
|---|---|---|---|
| Below 28 | $0.87 | 36-36.9 | $1.29 |
| 28-28.9 | 0.92 | 37-37.9 | 1.325 |
| 29-29.9 | 0.97 | 38-38.9 | 1.36 |
| 30-30.9 | 1.02 | 39-39.9 | 1.395 |
| 31-31.9 | 1.07 | 40-40.9 | 1.43 |
| 32-32.9 | 1.12 | 41-41.9 | 1.465 |
| 33-33.9 | 1.17 | 42-42.9 | 1.50 |
| 34-34.9 | 1.22 | 43-43.9 | 1.535 |
| 35-35.9 | 1.255 | 44 and above | 1.57 |

Cotton Valley, Sarepta and Carterville below 36 gravity, $0.85. Rest of schedule same as Caddo, Homer, etc.

| | |
|---|---|
| Smackover, below 24 | $0.90 |
| do 24 and above | 1.05 |
| Bellevue (Apr. 11, 1930) | 1.15 |
| *Urania, La. (Apr. 11, 1930) | 0.95 |
| †East El Dorado (Calion) (Apr. 11, 1930) | 0.90 |

*Posted by Louisiana Oil Refining Corp.

†Posted by Magnolia Petroleum Co.

Apr. 10, 1930, The Texas Co. same schedule in Louisiana as Standard, plus these grades: 24-24.9, $0.67; 25-25.9, $0.72; 26-26.9, $0.77; 27-27.9, $0.82.

Apr. 11, Magnolia met Standard schedule in Louisiana-Arkansas fields.

### STEPHENS, ARKANSAS

**Lousiana Oil Refining Corp., and Atlantic Oil Producing Co.**

Effective Apr. 11, 1930

| | | | |
|---|---|---|---|
| Below 28 | $0.76 | 30-30.9 | $0.91 |
| 28-28.9 | 0.81 | 31-31.9 | 0.96 |
| 29-29.9 | 0.86 | 32 and above | 1.01 |

### GULF COASTAL

**Posted by Humble Oil & Refining Co.**

Effective Apr. 10, 1930

| | | | |
|---|---|---|---|
| Grades A | $1.15 | 34-34.9 | $1.30 |
| Grades B: | | 35-35.9 | 1.33 |
| Below 25 | 1.00 | 36-36.9 | 1.36 |
| 25-25.9 | 1.03 | 37-37.9 | 1.39 |
| 26-26.9 | 1.06 | 38-38.9 | 1.42 |
| 27-27.9 | 1.09 | 39-39.9 | 1.44 |
| 28-28.9 | 1.12 | 40-40.9 | 1.46 |
| 29-29.9 | 1.15 | 41-41.9 | 1.48 |
| 30-30.9 | 1.18 | 42-42.9 | 1.50 |
| 31-31.9 | 1.21 | 43-43.9 | 1.52 |
| 32-32.9 | 1.24 | 44 and above | 1.54 |
| 33-33.9 | 1.27 | | |

**Refugio county** (rest of schedule, same as Grades B, which see above).

| | |
|---|---|
| Below 25 | $0.85 |
| 25-25.9 | 1.03 |

Fields classified as A and B are Spindletop, Goose Creek, Hull, Liberty, Sour Lake, West Columbia, Orange, Boling, Humble, Pierce Junction, Sugarland and Raccoon Bend. All other fields are Grades A only.

Specifications for Grade "A" crude: Gravity: 25° and below, at 60° F; Viscosity: not less than 100 seconds at 100° F Saybolt.

Sulfur: not over .4%.

Grade "B" includes all Coastal crude which does not meet the test for "A" grades.

## Sale of Colored Gasoline Spreads in Germany

CHICAGO, Aug. 9.—A sudden demand for color in gasoline has arisen in Germany, according to letters received from Dr. Gustav Egloff of Universal Oil Products Co., who is traveling in Europe, after having delivered a paper at the World Power Conference in Berlin last June. The color fad began to gain important proportions about June 1, Dr. Egloff says.

Just how the fashion for colored motor fuel got started, he does not say, but it seems likely it was promoted by refiners to wean the public away from the notion that gasoline must be water white, and thereby save unnecessary treating costs.

High knock rating is a prize virtue in German motor fuels as well as American, but benzol is almost the only anti-knock material used to produce this knock rating.

The law forbids the sale of Ethyl gasoline in Germany, so Dr. Egloff was informed, and iron carbonyl, which once gave considerable promise as an anti-knock dope, has fallen into disuse.

About the same difference in price between premium gasolines and the regular grade exist in Germany as in this country: namely, 3 cents a gallon.

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# Crude Oil Prices (in Effect Aug. 11, 1930)

(Prices are per barrel at the well)

*(Crude Oil Prices for the whole year in OIL PRICE HANDBOOK published annually)*

## GULF COASTAL

**Prices of The Texas Co.**

Effective Apr. 10, 1930

Grades A.....$1.15 *Grades B.....$1.00

*Grades B include all heavy crudes which do not meet tests for Grades A or for Grades B light crude. Prices for Grades B light crude are the same as Humble's, which see.

## ROCKY MOUNTAIN FIELDS

**Prices of Ohio Oil Co., and Midwest Refining Co.**

(Salt Creek prices effective Apr. 10, 1930)

| | |
|---|---|
| ‡Salt Creek 29–29.9 | $1.00 |
| " " 30–30.9 | 1.05 |
| " " 31–31.9 | 1.10 |
| " " 32–32.9 | 1.15 |
| " " 33–33.9 | 1.185 |
| " " 34–34.9 | 1.22 |
| " " 35–35.9 | 1.255 |
| " " 36–36.9 | 1.29 |
| " " 37 and above | 1.325 |
| Elk Basin | 1.55 |
| Grass Creek light | $1.55 |
| Big Muddy | 1.38 |
| Lance Creek | 1.63 |
| Rock Creek | 1.35 |
| Mule Creek | 1.20 |
| Rex Lake | 1.10 |
| ‡Osage | 1.63 |
| ‡Cat Creek, Mont | 1.55 |
| Sunburst, Mont | 1.65 |
| ‡Hogback, N Mex | 1.40 |
| Artesia, N. Mex | 1.05 |

‡Posted by Midwest Refining Co. Midwest also buys Grass Creek light and Elk Basin.

## CALIFORNIA

**Standard Oil Co. of California**

**(Effective March 11, 1930)**

| Gravity | Signal Hill Seal Beach Alamitos Heights Huntington Beach Inglewood* Olinda-Brea Canon* | Athens Rosecrans Domingues | Elwood Terrace | Torrance Richfield | Whittier La Habra | Montebello | Coyote | Santa Fe Springs (Effective June 14, 1930) | Newhall McKittrick Kern River | Midway-Sunset Elk Hills Buena Vista Hills Lost Hills | Coalinga | Wheeler Ridge | Kettleman Hills | Orcutt (Santa Maria) (Union Oil Co.) | Santa Paula (Ventura) (Union Oil Co.) | Ventura Avenue (Associated Oil Co.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14–14.9** | $0.70 | .... | .... | $0.70 | $0.70 | $0.70 | $0.70 | .... | $0.55 | $0.55 | $0.55 | $0.55 | .... | $0.55 | $0.70 | $0.70 |
| 15–15.9 | .70 | .... | | .70 | .70 | .70 | .70 | .... | .55 | .55 | .55 | .55 | .... | .55 | .70 | .70 |
| 16–16.9 | .70 | .... | | .70 | .70 | .70 | .70 | .... | .55 | .55 | .55 | .55 | $1.65 | .55 | .70 | .70 |
| 17–17.9 | .70 | .... | | .70 | .70 | .70 | .70 | .... | .55 | .55 | .55 | .55 | for | .55 | .70 | .70 |
| 18–18.9 | .76 | .... | | .76 | .76 | .71 | .76 | .... | .55 | .62 | .62 | .62 | 55° | .65 | .75 | .76 |
| 19–19.9 | .82 | .... | | .82 | .82 | .77 | .82 | .... | .55 | .70 | .70 | .70 | gravity | .70 | .80 | .82 |
| 20–20.9 | .88 | .... | | .88 | .87 | .83 | .87 | .... | .... | .78 | .78 | .78 | and | .78 | .85 | .88 |
| 21–21.9 | .94 | .... | F. o. b. ship | .94 | .93 | .90 | .93 | $0.92 | .... | .86 | .86 | .86 | over | .90 | .90 | .91 |
| 22–22.9 | 1.00 | .... | .... | 1.00 | .98 | .97 | .98 | .95 | .... | .94 | .94 | .94 | .... | .95 | .97 | .94 |
| 23–23.9 | 1.07 | .... | .... | 1.07 | .... | 1.05 | 1.04 | 1.01 | .... | 1.02 | 1.02 | 1.02 | .... | 1.02 | 1.05 | 1.00 |
| 24–24.9 | 1.14 | 1.14 | .... | 1.14 | .... | 1.11 | 1.10 | 1.07 | .... | 1.09 | 1.07 | 1.07 | .... | 1.10 | 1.08 | 1.07 |
| 25–25.9 | 1.21 | 1.19 | .... | 1.21 | .... | 1.17 | 1.16 | 1.13 | .... | 1.16 | 1.12 | 1.12 | .... | 1.18 | 1 13 | 1.14 |
| 26–26.9 | 1.28 | 1.24 | .... | 1.28 | .... | 1.23 | 1.23 | 1.19 | .... | 1.23 | 1.17 | 1.17 | .... | 1.26 | 1.18 | 1.21 |
| 27–27.9 | 1.35 | 1.29 | .... | 1.35 | .... | 1.29 | 1.30 | 1.25 | .... | 1.30 | 1 23 | 1.22 | .... | .... | 1.23 | 1.28 |
| 28–28.9 | 1 42 | 1.34 | .... | 1.42 | .... | 1.35 | 1.37 | 1.31 | .... | 1.35 | 1.27 | .... | .... | .... | 1 28 | 1.35 |
| 29–29.9 | 1 46 | 1.39 | .... | †1.46 | .... | 1.38 | 1.41 | 1.37 | .... | 1.41 | 1.31 | .... | .... | .... | 1 33 | 1.39 |
| 30–30.9 | 1.50 | 1.45 | .... | †1.50 | .... | 1.41 | 1.45 | 1.43 | .... | 1.47 | 1.35 | .... | .... | .... | 1 39 | 1 43 |
| 31–31.9 | 1.55 | 1.51 | .... | .... | .... | .... | .... | 1.49 | .... | 1.53 | 1.39 | .... | .... | .... | 1 45 | 1 48 |
| 32–32.9 | 1.60 | 1.57 | .... | .... | .... | .... | .... | 1.55 | .... | 1.59 | 1.43 | .... | .... | .... | 1 51 | 1.53 |
| 33–33.9 | .... | 1.64 | .... | .... | .... | .... | .... | 1.60 | .... | 1.65 | 1.47 | .... | .... | .... | 1.58 | 1.59 |
| 34–34.9 | .... | 1 71 | 1.32 | .... | .... | .... | .... | 1.65 | .... | ††1.71 | 1.51 | .... | .... | .... | .... | 1.65 |
| 35–35.9 | .... | 1.78 | 1.39 | .... | .... | .... | .... | 1.70 | .... | ††1.77 | 1.55 | .... | .... | .... | .... | 1.71 |
| 36–36.9 | .... | 1.84 | 1.46 | .... | .... | .... | .... | 1.75 | .... | .... | .... | .... | .... | .... | .... | .... |
| 37–37.9 | .... | 1.90 | 1.53 | .... | .... | .... | .... | 1.80 | .... | .... | .... | .... | .... | .... | .... | .... |
| 38–38.9 | .... | 1.96 | 1.60 | .... | .... | .... | .... | 1.85 | .... | .... | .... | .... | .... | .... | .... | .... |
| 39–39.9 | .... | 2.02 | 1.66 | .... | .... | .... | .... | 1.90 | .... | .... | .... | .... | .... | .... | .... | .... |
| 40–40.9 | .... | 2.08 | 1.72 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| 41–41.9 | .... | 2.14 | 1.78 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| 42–42.9 | .... | 2.20 | 1.84 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |

*Inglewood prices run only to 28.9 gravity; Olinda-Brea Canon to 31.9 gravity.
†Richfield crude only. ††These two grades apply on Lost Hills only.
**Standard does not contract for crude testing below 14 gravity, but pays 45c per barrel when purchased.

# REFINERS' and COMPOUNDERS' SUPPLIES

Following are average market prices for materials used by refiners and compounders effective on the date shown.

### Refiners' Supplies

| | Aug. 11 | Aug. 4 |
|---|---|---|
| Soda Ash light 58% bags, cwt. | $1.32 | $1.32 |
| Silicate of Soda 60 deg. drums, ....cwt. | $1.55 | $1.55 |
| Silicate of Soda 40 deg. tank cars....cwt. | $0.60 | $0.60 |
| Silicate of Soda 40 deg. drums ....cwt. | $0.80 | $0.80 |
| Sal Soda wks | $1.00-1.05 | $1.00-1.05 |
| Caustic Soda 76% solid, cwt. | $2.90 | $2 90 |
| Sulfuric Acid 60 deg. tank cars, f.o.b. shipping point per ton | $11.00 | $11.00 |
| Oleum 20%, fuming sulfuric, tank cars, wks | $18.50 | $18.50 |
| Sulfur, flowers of....cwt. | $3.10-4.00 | $3.10-4.00 |
| Liquid Chlorine, tank cars, wks....lb. | 3.50-5.00 | 3.50-5.00 |

### Compounders' Supplies

| | Aug. 11 | Aug. 4 |
|---|---|---|
| **Vegetable Oils** | | |
| Linseed carloads, spot....lb. | 13.60 | 13 60 |
| Tanks, spot | 13.20 | 13.20 |
| Soya Bean, Tank, coast..lb. | 8.50–9.00 | 8.50–9.00 |
| **Oleic Acid** | | |
| Distilled, tanks....lb. | 8 25 | 8.25 |
| Distilled, bbls....lb. | 9 125 | 9 125 |
| Saponified, tanks....lb. | 8 50 | 8 50 |
| Saponified, bbls....lb. | 9.375 | 9.375 |
| **Lard Oils** | | |
| Prime Winter Strained....lb. | 13.125 | 13.125 |
| Extra Winter Strained....lb. | 11 00 | 11 00 |
| Extra....lb. | 10 75 | 10 75 |
| Extra No. 1....lb. | 10 00 | 10 00 |
| No. 1....lb. | 10.00 | 10.00 |
| No. 2....lb. | 9.75 | 9.75 |
| Tallow oil....lb. | 10.00 | 10.00 |
| **Neatsfoot Oil** | | |
| Pure, bbls....lb. | 13.00 | 13.00 |
| Extra, bbls....lb. | 11.00 | 11.00 |
| No. 1 bbls....lb. | 10.50 | 10.50 |
| Cold Pressed....lb. | 17.25 | 17.25 |
| **Fish Oils** | | |
| Menhaden Oil Light Pressed....gal. | 57–58 | 57–58 |
| Light Pressed, tank cars, N. Y....gal. | 47–48 | 47–48 |
| White bleached....gal. | 57–58 | 57–58 |
| Yellow bleached....gal. | 51–54 | 51–54 |
| Whale, extra winter bleached, ....gal. | 85 | 85 |
| **Naval Stores** | | |
| Steam, distilled turpentine, N. Y....gal. | 40 | 40 |
| Steam distilled turpentine, Savannah....gal. | 39 | 39 |
| Gum turpentine, N. Y...gal. | 44 | 44 |
| Gum turpentine, f.o.b. cars Savannah....gal. | 38 25 | 38.25 |
| Wood Rosin, N. Y....gal. | $5 26 | $5 26 |
| Wood Rosin F, Savn'h..bbl. | $4 50 | $4 50 |
| Gum Rosin B, N Y..bbl. | $5.65–$5.85 | $5.65–$5.85 |
| Gum Rosin B, f.o.b. cars Savannah....bbl. | $4.90 | $4.90 |
| Rosin oil, pure....gal. | 57 | 57 |
| Rosin Oil, compounded..gal. | 50 | 50 |
| **Pine Tar** | | |
| Kiln burnt....bbl. | $13.00–14.00 | $13.00–14.00 |
| Retort....bbl. | $13.50–14.50 | $13.50–14.50 |
| **Alcohol** | | |
| Denatured Formula 5, in bbls., per gal.... | 44–46 | 44–46 |

# Merchandising and Jobbing Ideas Marketers Are Practicing

By E. L. Barringer
N. P. N. STAFF WRITER

**Wisconsin Jobber Builds One-Stop Station**

Grasse Bros. Oil Co., one of the old time jobbers in Wisconsin, has gone in for one-stop service. An accompanying picture shows the company's big station, opened early in the summer, in Sheboygan.

The Grasse company has been in the oil business about 10 years. Until a few years ago it marketed its own brands. Now it is a distributor for Cities Service products. Walter Grasse, president, reports the advertised brand increased sales about 100 per cent.

Tires and lubrication service are featured at most of the company's 12 service stations. Fisk tires are sold. The one-stop station pictured herewith has taken on gasoline, motor oil, lubrication, tires, brake service, and car washing. Mr. Grasse said the brake relining department was an asset to the station.

This station is a block off the main highway through Sheboygan, but is the nearest one-stop to the retail business district. It is on a hill, and considerable skill was used in laying the concrete drive. The drive has a four-foot drop across the station, but the mental hazard was eliminated in laying out the station.

* * *

**Radio Program For $1.35 Helps Grease Sales Ten Fold**

A nightly radio program of one minute, costing $1.35, increased transmission and differential grease sales ten fold for the Conklin & Sons company in Madison, Wis.

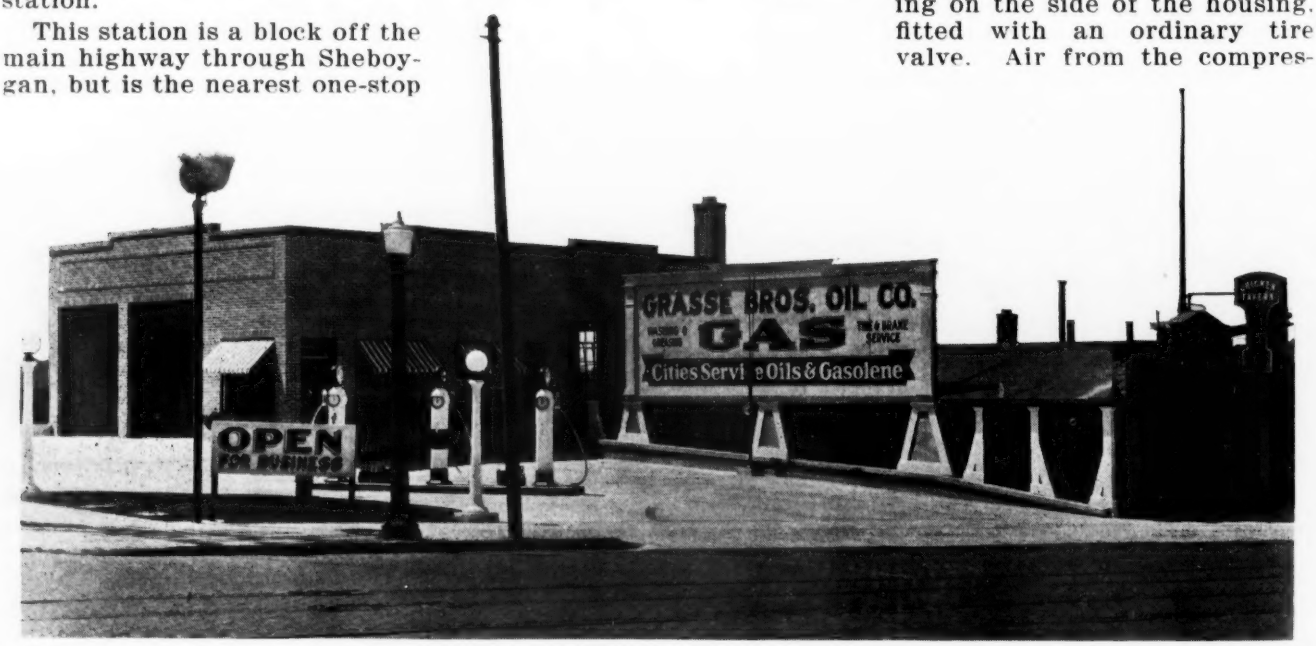
For several years Conklin & Sons, old time Madison coal dealers, have been in the fuel oil business, and have operated a few service stations.

Last winter transmission grease sales at one of the main stations were about 10 pounds daily. Then the radio idea came up, and J. B. Conklin, managing the oil end, went on the air for a minute each evening.

Transmission grease sales jumped to 100 pounds daily for the two weeks. A sales talk comprised the one minute program at the Madison station. The come-along offer was to steam out the housing, which was necessary anyway.

Three men instead of one, were put on lubrication service. At times the men just lubricated transmissions, and Mr. Conklin was cashier; the employes were too busy to take the money. Mr. Conklin is a stickler for cleanliness at stations, but during one rush the pits went uncleaned for three days.

To facilitate cleaning differentials, a home-made device was rigged up. Steam was applied to the housing with a Lightning Liquefier. The home-made device consisted of a plug, slightly smaller than the opening on the side of the housing, fitted with an ordinary tire valve. Air from the compres-




**The Grasse Bros. Oil Co. one-stop station in Sheboygan, Wis. Note the slope of the drive, which was laid to eliminate the mental hazard**

A self measuring gear pump with a 200 gallon tank mounted on skids enabling this complete unit to be easily and quickly moved to any desired location.

Tank is equipped with skids—making it easy to draw from one location to another. Can furnish any size tank up to 500 gallons.

# The Sistersville Portable

## A PORTABLE FILLING STATION FOR FIELD SERVICE

Furnished in any size tank up to 500 gallons.

Here is a new unit particularly well adapted to meet the requirements of General Contractors, Large Operators, Industrial and Agricultural uses, as well as for the individual car owner.

A self measuring gear pump, with 8 feet of ¾" Triplexd hose, regulation nozzle, and 1" suetion pipe with foot valve. Comes with 3" nipple—easy to connect.

Tank is of 12 gauge material standard Sistersville Filling Station Tank Construction, mounted on skids.

Also comes in another model complete without skids for permanent location.

Write for details and prices.

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**CHICAGO, 565 Washington Blvd.** **LONDON, W. C. 1, 150 Southampton Row**
**PARIS, T. L. Genter, Concessionaire 63 Ave. des Champs Elysees**

# Transactions in Oil Shares on New York Stock Exchange

| 1929 High | 1929 Low | 1930 High | 1930 Low | Listed Shares | Par Value | Company | Div. Rate | Last Paid | Transactions Week Ended Aug. 9 Sales | First | High | Low | Last | Change |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 42⅝ | 17½ | 42¼ | 20½ | 922,075 | N.P. | Amerada Corp. | 50cQ | July 31, 30 | 4,200 | 25 | 25 | 23⅛ | 23½ | — 2 |
| 64⅜ | 12½ | 37 | 15½ | 209,180 | N.P. | American Republics Corp. | .... | ..... | 800 | 19⅜ | 19¾ | 17⅝ | 17⅜ | — ⅝ |
| 47½ | 34½ | 51 | 32½ | 2,240,000 | $25 | Associated Oil | 50cQ | June 30, 30 | 10 | 40 | 40 | 40 | 40 | 0 |
| 77¼ | 30 | 51⅜ | 30⅛ | 2,683,868 | 25 | Atlantic Refining Co. | ‡25cQ | June 16, 30 | 21,000 | 37 | 38⅜ | 35 | 35¼ | — 1⅝ |
| 49⅛ | 20 | 34 | 20½ | 2,257,108 | 25 | Barnsdall Corp. A | 50cQ | Aug. 6, 30 | 22,000 | 23⅛ | 24⅜ | 22⅛ | 22½ | — ⅝ |
| 34½ | 25 | 35 | 28 | 2,060,966 | 25 | California Petroleum Corp. | .... | Jan. 1, 29 | ..... | .... | .... | .... | .... | ..... |
| 32⅞ | 12½ | 20⅝ | 12¼ | 1,444,970 | N.P. | Colonial Beacon Oil Co. | .... | ..... | 400 | 14 | 14⅛ | 14 | 14 | — ½ |
| 37¾ | 18 | 30½ | 18⅜ | 4,610,258 | N.P. | Continental Oil (Delaware) | .... | ..... | 17,800 | 21⅞ | 21⅞ | 19¼ | 20 | — 1 |
| 94¾ | 42¼ | 71⅛ | 39 | 410,857 | $100 | General Asphalt Co. | $1Q | June 16, 30 | 2,400 | 45¾ | 46 | 41¼ | 41¼ | — 4 |
| 109 | 26 | 116⅞ | 52¼ | 250,000 | 100 | Houston Oil | .... | ..... | 65,900 | 84½ | 88⅛ | 71½ | 74⅜ | —10½ |
| 39⅜ | 17⅜ | 32 | 19⅜ | 1,379,295 | N.P. | Independent Oil & Gas | 50cQ | July 31, 30 | 8,800 | 21¼ | 22 | 20½ | 20⅞ | — ⅜ |
| 53 | 13⅛ | 28⅜ | 8⅞ | 699,066 | 10 | Indian Refining | .... | Dec. 15, 20 | 24,000 | 12½ | 13¼ | 10¼ | 11 | — 1⅜ |
| 51¼ | 11½ | 27⅜ | 8⅛ | 568,816 | 10 | do certificates | .... | ..... | ..... | .... | .... | .... | .... | ..... |
| 38⅜ | 16½ | 29½ | 21¼ | 3,994,150 | N.P. | Lago Oil & Transport | .... | Aug. 2, 27 | 900 | 28¾ | 29 | 28¾ | 28⅞ | + ¼ |
| 18 | 7 | 12 | 8 | 1,187,701 | N.P. | Louisiana Oil Refining | .... | ..... | 2,200 | 8½ | 9½ | 8½ | 8½ | 0 |
| 100¼ | 80 | 89½ | 80⅛ | 40,000 | $100 | do pfd. | $1.62½Q | Aug. 15, 30 | 20 | ... | 81¾ | 80¾ | 80¾ | + 2½ |
| 18½ | 5⅞ | 10⅜ | 4½ | 330,000 | N.P. | Maracaibo Oil Exploration | .... | ..... | 1,500 | 5 | 5 | 4¾ | 4¾ | — ¼ |
| 295 | 176 | 180 | 174 | 459,428 | $100 | Mexican Petroleum | $3Q | July 31, 30 | ..... | .... | .... | .... | .... | ..... |
| 105 | 102 | ... | ... | 120,000 | 100 | do pfd. | $2Q | July 31, 30 | ..... | .... | .... | .... | .... | ..... |
| 69⅜ | 9¼ | 37 | 16⅜ | 1,244,383 | N.P. | Mexican Seaboard Oil | .... | Oct. 15, 24 | 51,700 | 22½ | 23⅞ | 19½ | 20½ | — 2⅛ |
| 39⅞ | 22⅛ | 33 | 22⅛ | 1,899,138 | N.P. | Mid-Continent Petroleum | 50cQ | Aug. 1, 30 | 2,800 | 24 | 24 | 23⅛ | 23⅛ | — ⅞ |
| 3⅜ | ¾ | 2½ | ⅞ | 908,171 | N.P. | Middle States Oil ctfs. | .... | ..... | 1,100 | 1⅛ | 1⅛ | 1 | 1 | 0 |
| 69 | 40¼ | 64¼ | 51⅜ | 1,000,000 | $50 | Pan American Petrol. & Trans. | .... | Oct. 20, 27 | 1,300 | 59 | 59⅛ | 58½ | 59 | + ⅜ |
| 69¼ | 40½ | 67½ | 50½ | 2,422,221 | 50 | do B | .... | Oct. 20, 27 | 4,900 | 59 | 59 | 58 | 58 | — ⅝ |
| 15¼ | 3 | 12¾ | 4⅛ | 199,370 | N.P. | Panhandle Prod. & Refg. | .... | ..... | 400 | 7¼ | 7½ | 6½ | 6½ | — 1 |
| 76 | 47½ | 80 | 47½ | 25,666 | $100 | do pfd. | .... | July 2, 23 | ..... | .... | .... | .... | .... | ..... |
| ... | ... | 27¼ | 18¾ | 2,937,900 | N.P. | Petroleum Corp. of America | 37½cQ | June 30, 30 | 10,800 | 20¾ | 21¼ | 19⅝ | 19⅝ | — ⅞ |
| 47 | 24¼ | 44⅜ | 29⅜ | 2,670,089 | N.P. | Phillips Petroleum Co. | 50cQ | June 30, 30 | 33,400 | 32½ | 33¾ | 31 | 31½ | — 1½ |
| 3⅜ | 1 | 2½ | 1 | 1,184,917 | $25 | Pierce Oil Corp. | .... | ..... | 1,800 | 1⅛ | 1⅛ | 1 | 1⅛ | — 1/16 |
| 51½ | 20 | 52 | 20½ | 150,000 | 100 | do pfd. | .... | Feb. 1, 22 | 400 | 31 | 31 | 28¼ | 28¼ | — 3¾ |
| 5⅞ | ½ | 7⅜ | 2¼ | 2,500,000 | N.P. | Pierce Petroleum Corp. | .... | ..... | 10,100 | 5¼ | 5½ | 4⅞ | 5 | — ¼ |
| 65⅜ | 40½ | 54 | 35⅜ | 2,435,670 | $25 | Prairie Oil & Gas Co. | 50cQ | June 30, 30 | 1,600 | 37½ | 37½ | 36¼ | 36¼ | — ¾ |
| 65 | 45 | 60 | 44⅛ | 4,050,000 | 25 | Prairie Pipe Line Co. | ‡75cQ | June 30, 30 | 3,700 | 45 | 45⅞ | 44⅞ | 45 | 0 |
| 25⅞ | 4 | 11⅞ | 6½ | 749,017 | 50 | Producers & Refiners Corp. | .... | Sept. 15, 30 | 500 | 7¼ | 7¾ | 7¼ | 7¼ | — ¾ |
| 46¾ | 25½ | 38 | 30 | 56,907 | 50 | do pfd. | .... | May 4, 25 | 80 | 32 | 32 | 32 | 32 | — 3 |
| 30¾ | 20 | 27¼ | 19⅛ | 3,038,370 | 25 | Pure Oil Co. | 37½cQ | June 2, 30 | 11,000 | 21½ | 21⅞ | 20⅝ | 20¾ | — ⅝ |
| 116 | 108 | 114¼ | 110½ | 130,000 | 100 | do 8% pfd. | $2Q | July 1, 30 | 40 | ... | 113 | 112½ | 112¾ | + ¾ |
| 49⅝ | 22⅝ | 28¼ | 14¾ | 2,101,550 | 25 | Richfield Oil (California) | 50cQ | May 15, 30 | 14,400 | 17½ | 17½ | 15½ | 15½ | — 1¾ |
| 42½ | 15 | 25¾ | 15½ | 1,235,270 | N.P. | Rio Grande Oil Co. | 50cQ | July 25, 30 | 7,300 | 17½ | 17½ | ↑15½ | 16 | — 1⅝ |
| 64 | 43⅜ | 56½ | 49⅛ | 951,310 | $13.40 | Royal Dutch (N. Y. shares) | $1.875 | Aug. 13, 30 | 8,800 | 51¾ | 52¾ | 51 | 51¾ | — ¼ |
| 55⅜ | 43⅜ | 48⅜ | 42⅜ | 77,492 | £2 | Shell Trans. & Trading | $1.453 | July 28, 30 | 480 | 44⅛ | 44⅛ | 44⅛ | 44⅛ | — 1¾ |
| 31¾ | 19 | 25½ | 18 | 13,069,076 | N.P. | Shell Union Oil Corp. | 35cQ | June 30, 30 | 6,500 | 19⅜ | 19⅝ | 19 | 19 | — ⅜ |
| ... | ... | 106¼ | 95 | 400,000 | 100 | do pfd. | $1.37½Q | July 1, 30 | 400 | 100½ | 100½ | 99½ | 99½ | — ½ |
| 40⅛ | 15 | 37 | 18 | 869,255 | 10 | Simms Petroleum Co. | 40cQ | June 14, 30 | 4,900 | 21 | 21¾ | 20 | 20 | — 1 |
| 45 | 21 | 32 | 20⅝ | 5,455,665 | N.P. | Sinclair Consolidated Oil Corp. | 50cQ | July 15, 30 | 70,100 | 24⅛ | 25¼ | 22⅛ | 22½ | — 1⅜ |
| 111 | 103 | 112¼ | 108 | 154,685 | 100 | do pfd. | $2Q | Aug. 15, 30 | 400 | 110 | 110¼ | 110 | 110 | + ¼ |
| 46½ | 42 | 42 | 28½ | 1,097,650 | $25 | Skelly Oil Co. | 50cQ | June 16, 30 | 3,200 | 30¼ | 31 | 28⅝ | 29⅝ | — ⅛ |
| ... | ... | 99¾ | 87 | 120,000 | 100 | do pfd. | $1.50Q | Aug. 1, 30 | 700 | 89⅜ | 89½ | ↑87 | 87 | — 1¼ |
| ... | ... | 104¼ | 98 | 750,000 | 100 | S. O. Export Corp. pfd. | $2.50S.A. | June 30, 30 | 1,800 | 102¼ | 103¾ | 102¼ | 103¾ | + 1½ |
| 81⅛ | 51½ | 75 | 55½ | 13,016,434 | N.P. | S. O. California | 62½cQ | June 16, 30 | 31,200 | 63 | 65½ | 60⅜ | 61½ | — 1¾ |
| ... | ... | 49 | 29 | 320,000 | $25 | S. O. Kansas | 50cQ | June 16, 30 | 800 | 31¼ | 33 | 31 | 31 | — ¼ |
| 83 | 48 | 84⅞ | 58 | 25,443,643 | 25 | S. O. New Jersey | ‡25cQ | June 16, 30 | 324,100 | 72⅛ | 74¾ | 67½ | 68¼ | — 4 |
| 48⅜ | 31⅜ | 40⅜ | 30 | 17,809,530 | 25 | S. O. New York | 40cQ | June 16, 30 | 25,000 | 32½ | 32¾ | 31 | 31 | — 1⅛ |
| 86⅜ | 55 | 70 | 50 | 1,416,911 | N.P. | Sun Oil Co. | 25cQ | June 16, 30 | 1,300 | 59⅛ | 60 | 56¾ | 56¾ | — 1⅝ |
| 105½ | 100 | 105⅛ | 102½ | 100,000 | $100 | do pfd. | $1.50Q | June 2, 30 | 150 | 108 | 108 | 105¼ | 105¼ | — 2¾ |
| 24 | 5¼ | 9⅜ | 2 | 1,026,979 | N.P. | Superior Oil Corp. | .... | ..... | 10,400 | 2⅞ | 3⅜ | 2¾ | 3 | + ¼ |
| 71⅞ | 50 | 60½ | 50⅛ | 9,850,724 | $25 | The Texas Corp. | 75cQ | July 1, 30 | 16,500 | 53 | 53⅝ | 51¼ | 51¼ | — 1⅝ |
| 23⅞ | 9½ | 14½ | 8¼ | 929,947 | 10 | Texas Pacific Coal & Oil | s2½% | Dec. 31, 29 | 3,900 | 9⅛ | 9⅛ | 8½ | 8½ | — ⅝ |
| 23½ | 10 | 17¾ | 10¾ | 5,881,980 | N.P. | Tide Water Associated Oil | 30cS.A. | Aug. 15, 30 | 17,600 | 13⅞ | 14½ | 13¾ | 14 | + ⅛ |
| 90⅞ | 74⅛ | 89¾ | 78 | 732,550 | $100 | do pfd. | $1.50Q | July 1, 30 | 2,100 | 84⅞ | 86¼ | 83¾ | 83¾ | — ¾ |
| 40 | 14 | 31 | 19½ | 2,191,820 | N.P. | Tide Water Oil Co. | 20cQ | June 30, 30 | ..... | .... | .... | .... | .... | ..... |
| 97½ | 85⅛ | 94⅞ | 83 | 199,443 | $100 | do pfd. | $1.25Q | Aug. 15, 30 | 300 | 90½ | 90½ | 90½ | 90½ | + ½ |
| ... | ... | 24 | 16¼ | 3,339,150 | N.P. | Transcontinental Oil | 30c | May 1, 30 | 20,400 | 18⅛ | 18⅜ | 17½ | 17¼ | — ⅝ |
| 57 | 42⅛ | 50 | 37 | 2,201,008 | $25 | Union Oil Co. (California) | ‡50cQ | Aug. 9, 30 | 3,500 | ... | 41 | 40 | 40 | — 1 |
| ... | ... | 38½ | 25¼ | 1,254,048 | N.P. | Union Tank Car Co. | 40cQ | June 2, 30 | 2,500 | 13¼ | 28½ | 27 | 27 | — ¾ |
| 42⅞ | 15 | 27 | 12¾ | 777,603 | N.P. | Warner Quinlan Co. | 25cQ | July 3, 30 | 5,000 | 13 | 13½ | 12⅞ | 12⅞ | — ⅜ |
| 38 | 25 | 29½ | 26 | 490,000 | N.P. | White Eagle Oil & Refg. | 50cQ | Apr. 20, 30 | ..... | .... | .... | .... | .... | ..... |
| 29¾ | 12⅞ | 21 | 11½ | 428,967 | N.P. | Wilcox Oil & Gas Co. | .... | May 10, 28 | 400 | 16½ | 16¾ | 16½ | 16½ | 0 |

*New high †New low ‡Also extra s-Stock Total sales 891,680

sor was applied to the valve, driving out all moisture and sediment after the steam process. Workmen held the plug in place with a cloth to prevent splashing, and applied the air until the sediment had been driven through the lower opening.

The air valve plug was slightly smaller than the side opening to prevent building up a pressure. Mr. Conklin believes a snug fitting plug could be used safely, but the smaller size was just a precaution. Unless the employe holds a cloth around the plug the air will blow dirt through the side opening into his face.

* * *

### Wisconsin Capital Heavy Burner Oil Consumer

Madison, Wis., boasts of being a big consumer of domestic burner oils. Oil companies have been active in soliciting the home owner, one company having been in this business for ten years. Coal companies also have taken on oils as a defense in the inroads on petroleum on coal.

Among the domestic oil consumers are many homes in the newer residential suburbs, big hospitals, laundries, 17 of the hundred fraternity and sorority houses at the state university, and several of the state office buildings.

Oil companies that have taken on heating oils are the Empire Fuel Oil Co., Wadhams Oil Corp., Standard Oil Co. of Indiana, Valvoline Oil Co., Shell Petroleum Corp., and the Johnson Oil Refining Co. Other retailers now handling oils are the Loftsgordon Fuel Co., Conklin & Sons, Siniako Bros. Fuel Co., Rosen Heating Co., and the Limblen Lumber Co.

* * *

### Smith Oil & Refining Co. Builds Office Building

The big, downtown service station of the Smith Oil & Refining Co. at Rockford, Ill., has been moved one block, and the location will be used for an eight-story office building. Offices of the Smith organization will be retained at the bulk plant, and all space rented in the Smith office building.

* * *

### Washable Building Materials Now Used For Stations

Along with the development of bigger and better station structures with enclosed lubrication facilities comes the use of washable building materials

for sides and roofs. One of the major companies has built two stations of this type; one in Cleveland, the other in Janesville, Wis. A large Independent in Illinois also has used a washable material for the sides of a new station.

First costs are considerably higher for washable tiles and shingles. The advantage is claimed in low maintenance, and upkeep. The materials can be washed easily, and the station freshened up frequently at low cost.

In the past few years big strides have been taken in better station design. The change fortunately, requires more capital to start in the oil business now. One Independent views the big station, with enclosed lifts, as the coming station. His prediction is that the day is coming, and rapidly, when the old type small service station will be as obsolete as the curb pump method of selling gasoline is today.

* * *

### Jere Kimmel Returns Home for the Summer

Jere Kimmel, founder of the Kimmel Oil Co. at Hiawatha, Kansas, returned from his winter home in Miami, Fla., in time to attend the convention of the Kansas Oil Men's Association in Wichita in April. Every winter he goes south, but returns to his heath when the weather breaks up.

Several years ago he turned the oil business to his son, Dean Kimmel, but he still takes an active interest in the industry and is one of the old-timers at the conventions.

The week after the convention he got another job—sitting on the federal jury at Topeka, Kansas.

* * *

### Jobber Sends Attendants To Tire College

Education of capable attendants to operate the tire department of one-stop stations of the Johnson High Test Oil Co., Freeport, Ill., was accomplished by sending them to a tire school. The school was conducted by the manufacturer of the brand sold, and trained in repairing and changing tires.

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# Standard Oil Stocks on New York Curb

| 1929 High | 1929 Low | 1930 High | 1930 Low | Outstanding Shares | Par Value | Companies | Div. Rate | Last Paid | Transactions Sales | Week Ended Aug. 9 First | High | Low | Last | Change |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18¾ | 13½ | 18½ | 12¼ | ..... | £1 | Anglo-Amer. Oil voting stk. ctfs.. | 36c | June 5, 29 | ..... | ..... | ..... | ..... | ..... | ..... |
| 17⅛ | 11 | 19 | 12 | ..... | £1 | do non-voting stk. ctfs..... | 36c | June 5, 29 | ..... | ..... | ..... | ..... | ..... | ..... |
| 2½ | ¾ | 1 | ⅜ | 500,000 | N.P. | Atlantic Lobos Oil..... | .... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 4⅛ | 1 | 1½ | 1 | 200,000 | $50 | do pfd..... | .... | ..... | 100 | 1 | 1 | †1 | 1 | — ⅛ |
| 46½ | 25 | 25 | 14 | 40,000 | 25 | Borne Scrymser Co..... | $1S.A. | Apr. 15, 30 | ..... | ..... | ..... | ..... | ..... | ..... |
| 74¼ | 55 | 69 | 54⅞ | 200,000 | 50 | Buckeye Pipe Line Co..... | $1Q | June 14, 30 | 100 | 55 | 55 | †54⅞ | 54⅞ | — 1 |
| 210 | 130 | 184⅞ | 140½ | 120,000 | 25 | Chesebrough Mfg. Co..... | ‡$1Q | June 30, 30 | ..... | ..... | ..... | ..... | ..... | ..... |
| 11¾ | 5⅝ | 7⅝ | 5½ | ..... | N.P. | Creole Petroleum Co..... | .... | ..... | 4,400 | 6⅜ | 6⅜ | 6⅛ | 6⅛ | — ⅛ |
| 75¾ | 40 | 65¾ | 30½ | 30,000 | $ 50 | Cumberland Pipe Line Co..... | $1Q | June 16, 30 | 100 | 36 | 36 | 36 | 36 | + 1 |
| 70½ | 42 | 54¾ | 39 | 50,000 | 100 | Eureka Pipe Line Co..... | $1Q | Aug. 1, 30 | 100 | 39 | 39 | †39 | 39 | — 1 |
| .... | .... | 6¾ | 2½ | 280,000 | N.P. | Galena Oil Corp. w.i..... | .... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| .... | .... | 37¼ | 30 | ..... | N.P. | General Petroleum Corp. w.i.... | .... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 128 | 74⅛ | 119 | 78 | 2,974,645 | $25 | Humble Oil & Refg. Co..... | 50cQ | July 1, 30 | 4,300 | 88⅜ | 91 | 85 | 85 | — 3⅜ |
| 41 | 22 | 30 | 18⅛ | 26,490,741 | N.P. | Imperial Oil, Ltd..... | 12½cQ | June 2, 30 | 7,400 | 20⅜ | 21 | 20 | 20 | — ⅛ |
| 42⅛ | 26 | 41 | 31⅞ | 300,000 | $10 | Indiana Pipe Line Co..... | ‡50cQ | Aug. 15, 30 | 1,000 | 32¼ | 32¼ | 31⅜ | 31⅜ | — 1 |
| 29⅜ | 15 | 24 | 17⅝ | 14,247,880 | N.P. | International Petroleum Co..... | 25c | June 16, 30 | 12,900 | 19 | 19⅜ | 18⅜ | 18⅜ | — ⅛ |
| 25⅞ | 10½ | 22⅜ | 15⅛ | 509,000 | $12½ | National Transit Co..... | 25cQ | June 16, 30 | 400 | 16¾ | 16¾ | 16¾ | 16¾ | — ⅛ |
| 17¾ | 10 | 21 | 10⅛ | 100,000 | 10 | New York Transit Co..... | 40cQ | July 15, 30 | 500 | 16½ | 16½ | 14⅞ | 14⅞ | — 3⅛ |
| 63 | 41 | 54 | 35½ | 40,000 | 50 | Northern Pipe Line Co..... | $2S.A. | July 1, 30 | 50 | 37 | 37 | 37 | 37 | — ⅛ |
| 79⅞ | 64⅛ | 75¾ | 62⅛ | 2,400,000 | 25 | Ohio Oil Co..... | $1Q | June 14, 30 | 400 | 64⅝ | 64¾ | 63¾ | 63¾ | — 1⅜ |
| 105½ | 103¾ | 108 | 103 | 600,000 | 100 | do pfd..... | $1.50Q | June 14, 30 | 400 | 105¼ | 106⅛ | 105¼ | 106⅛ | + 1⅛ |
| 44½ | 18⅝ | 32 | 17 | 400,000 | 25 | Penn Mex. Fuel Co..... | $1 | May 20, 30 | 400 | 25 | 25 | 24 | 24 | + 2 |
| 50 | 29 | 33 | 13½ | 160,000 | 25 | Solar Refining Co..... | $1.25S.A. | Dec. 20, 29 | 200 | 13½ | 13½ | †13½ | 13½ | — 1⅛ |
| 23½ | 13 | 20⅛ | 13 | 100,000 | 10 | Southern Pipe Line Co..... | $5 | June 2, 30 | ..... | ..... | ..... | ..... | ..... | ..... |
| 60¼ | 35⅛ | 45⅞ | 35 | 1,200,000 | 25 | South Penn Oil Co..... | ‡50cQ | June 20, 30 | 600 | 36⅞ | 36⅞ | 36¼ | 36¼ | — ¼ |
| 70 | 45 | 64 | 45¼ | 35,000 | 50 | Southwest Pa. Pipe Lines..... | $1Q | July 1, 30 | ..... | ..... | ..... | ..... | ..... | ..... |
| 63 | 45 | 59⅞ | 47⅝ | 16,850,587 | 25 | S. O. Indiana..... | 62½cQ | June 16, 30 | 21,900 | 50⅝ | 50⅞ | 49¾ | 49¾ | 0 |
| 46⅞ | 29 | 40½ | 30½ | 2,577,124 | 10 | S. O. Kentucky..... | 40cQ | June 30, 30 | 3,900 | 32 | 32 | 31⅛ | 31⅞ | — ⅛ |
| 50¼ | 40 | 48⅞ | 44⅛ | 188,159 | 25 | S. O. Nebraska..... | ‡62½cQ | June 20, 30 | 200 | 47½ | 47⅝ | 47¼ | 47¼ | + 1 |
| 129 | 60 | 108½ | 77 | 560,000 | 25 | S. O. Ohio..... | 62½cQ | July 1, 30 | 50 | 79¼ | 79¼ | 78⅛ | 78⅜ | — ⅜ |
| 124⅛ | 113⅛ | 122 | 115¼ | 70,000 | 100 | do pfd..... | $1.75Q | June 2, 30 | 50 | 119 | 119 | 118 | 118 | + ⅜ |
| 18 | 5⅛ | 10 | 5 | 34,158 | 25 | Swan Finch Oil Corp..... | .... | Jan. 15, 29 | ..... | ..... | ..... | ..... | ..... | ..... |
| 133¾ | 75⅛ | 97⅞ | 76¼ | 5,139,887 | 25 | Vacuum Oil Co..... | $1Q | June 20, 30 | 5,200 | 85⅜ | 85½ | 80½ | 82⅝ | — 2⅞ |

•New high †New low ‡Also extra

# Independent Oils on New York Curb

| 1929 High | 1929 Low | 1930 High | 1930 Low | Par Value | Companies | Transactions Sales | Week Ended Aug. 9 First | High | Low | Last | Change |
|---|---|---|---|---|---|---|---|---|---|---|---|
| .72 | ⅛ | ⅜ | 1/16 | $1 | Amer. Contr. Oilfields | 1,000 | ⅛ | 1/16 | 1/16 | 1/16 | — 1/16 |
| 8⅝ | 1⅛ | 4½ | 1½ | 5 | Amer. Maracaibo.... | 3,000 | 2¼ | 2⅜ | 2⅛ | 2⅛ | — ⅛ |
| 4¾ | 1 | 1⅛ | 1⅛ | 10 | Argo Oil..... | 200 | 1⅛ | 1⅛ | 1⅛ | 1⅛ | 0 |
| 26 | 3¾ | 16⅜ | 8¼ | N.P. | Arkansas Nat. Gas... | 100 | 9½ | 10 | 9 | 9¼ | — ⅜ |
| 24¾ | 6½ | 16⅝ | 8⅛ | N.P. | do Class A..... | 500 | 9⅜ | 9¾ | 9 | 9⅜ | — ⅛ |
| 9 | 4 | 8⅛ | 7⅝ | 10 | do pfd..... | 100 | 7⅞ | 8 | 7⅞ | 8 | + ⅛ |
| 70 | 50 | 28½ | 17 | N.P. | British American Oil.. | ..... | ..... | ..... | ..... | ..... | ..... |
| 4⅞ | ⅞ | 2¾ | ¾ | ¼ | Carib Syndicate..... | 300 | 1¼ | 1¼ | 1¼ | 1¼ | 0 |
| 68½ | 20 | 44¼ | 24⅛ | N.P. | Cities Service..... | 10,000 | 28⅜ | 29 | 27⅛ | 28 | — ½ |
| 99¼ | 84 | 93⅞ | 52 | 100 | do pfd..... | 300 | 90⅜ | 90⅜ | 89¾ | 90 | — ¼ |
| 9¼ | 8 | 9 | 7⅝ | 10 | do pref. B..... | 100 | 8¼ | 8¼ | 8¼ | 8¼ | 0 |
| 96 | 81 | 89⅞ | 82 | 100 | do pref. BB..... | 100 | 83 | 83 | 83 | 83 | + ½ |
| 1½ | ¼ | ⅛ | ¼ | 1 | Colombia Syndicate.. | 1,400 | 1/16 | 1/16 | 1/16 | 1/16 | 0 |
| 15 | 3⅞ | 8¼ | 3½ | N.P. | Colon Oil Corp..... | 1,800 | 4 | 4¼ | 4 | 4¼ | + ⅜ |
| ..... | ..... | 21 | 8 | N.P. | Columbia Oil & Gas... | 13,500 | 8¼ | 8⅜ | †8 | 8 | — ¼ |
| 11⅜ | 2½ | 5⅞ | 3½ | 10 | Consolidated Royalty | ..... | ..... | ..... | ..... | ..... | ..... |
| 135 | 42 | 74¾ | 32 | N.P. | Cosden Oil Co..... | 18,400 | 44½ | 45 | 35 | 37⅞ | — 6¼ |
| 87 | 55 | 70 | 60 | 100 | do pfd..... | 100 | 60 | 60 | †60 | 60 | + 2⅝ |
| 2½ | ¼ | 1 | ¼ | N.P. | Crown Central Pet... | 100 | ⅜ | ⅜ | ⅜ | ⅜ | 0 |
| 11¾ | 4 | .... | .... | N.P. | Crystal Oil..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 51⅛ | 51⅛ | .... | .... | 100 | do pfd..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 26 | 6½ | 13½ | 7¼ | N.P. | Darby Petroleum.... | 500 | 12⅝ | 12⅝ | 12 | 12 | — 1 |
| .... | .... | 21¾ | 21½ | N.P. | do new..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 11 | 2 | 11 | 4½ | N.P. | Derby Oil & Refg..... | 2,800 | 7 | 7 | 7 | 7 | 0 |
| 44 | 17 | 60 | 30 | N.P. | do pfd..... | 50 | 42 | 42 | 42 | 42 | + 2¼ |
| .... | .... | 12 | 12 | 10 | Devonian Oil..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 209 | 115 | 166⅞ | 117½ | $25 | Gulf Oil Corp..... | 3,800 | 124⅞ | 127¼ | 117⅛ | 118 | — 5½ |
| 7½ | 1⅜ | 4 | 2¼ | N.P. | Homaokla Oil..... | ..... | ..... | ..... | ..... | ..... | ..... |
| .... | .... | 47½ | 26⅝ | N.P. | Indian Territory A.. | 3,600 | 32 | 32½ | 31¼ | 31¾ | — ¼ |
| .... | .... | 53½ | 26⅞ | N.P. | do B..... | 4,200 | 32¼ | 32¼ | 31⅜ | 31⅜ | 0 |
| 2⅞ | ⅝ | 1¾ | ⅝ | 10 | Intercontinental Pet.. | 6,800 | ⅞ | ⅞ | ¾ | ¾ | 0 |
| 3⅜ | 1¼ | 3 | 1⅝ | N.P. | Kirby Petroleum.... | 900 | 1¾ | 1¾ | 1¾ | 1¾ | 0 |
| 6⅛ | 1 | 4¾ | 1⅛ | N.P. | Leonard Oil & Dev.. | 1,200 | 1⅞ | 1⅞ | 1¾ | 1¾ | 0 |
| 38⅞ | 18 | 29 | 18⅝ | N.P. | Lion Oil Refg..... | 900 | 19 | 19 | 19 | 19 | — 1 |
| 67⅞ | 28 | 55⅞ | 34½ | N.P. | Lone Star Gas..... | 3,800 | 39½ | 39½ | 36⅛ | 36⅛ | — 2⅞ |
| .... | .... | 31 | 17 | $25 | MacMillan Petrol.... | ..... | ..... | ..... | ..... | ..... | ..... |
| 2⅞ | ¼ | ⅛ | ⅛ | 1 | Magdalena Synd..... | 3,800 | ¼ | ¼ | ⅛ | ⅛ | — ⅛ |
| 38½ | 14 | 16 | 12 | N.P. | Margay Oil..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 6⅜ | 2¼ | 7⅛ | 2 | N.P. | Mexico Ohio Oil..... | ..... | ..... | ..... | ..... | ..... | ..... |
| .... | .... | 11⅞ | 4½ | N.P. | Middle States A.v.t.c. | 800 | 5⅝ | 5⅝ | 5½ | 5½ | — ½ |
| .... | .... | 6 | 2⅛ | N.P. | do Class B. v.t.c. | 400 | 2½ | 2½ | 2½ | 2½ | — ⅛ |
| 42 | 8 | 36¼ | 15 | 5 | Missouri-Kansas P.L. | 16,800 | 21¾ | 22 | 19⅛ | 19⅜ | — 2¼ |
| 1⅛ | ¼ | ⅝ | ⅜ | 1 | Mountain & Gulf Oil.. | ..... | ..... | ..... | ..... | ..... | ..... |
| 22⅞ | 7 | 12¼ | 8 | 10 | Mountain Producers.. | 4,800 | 9¾ | 11 | 9 | 10¼ | + ⅞ |
| 43⅞ | 24 | 41⅜ | 25⅛ | N.P. | Nat. Fuel Gas..... | 1,800 | 30⅞ | 31 | 30½ | 30½ | — ⅛ |
| 5 | 2¼ | 3½ | 2⅜ | $5 | New Bradford Oil.... | 100 | 2½ | 2½ | 2½ | 2½ | — ⅛ |
| 4⅜ | 3⅛ | 3⅛ | 2⅜ | 10 | New England Fuel... | ..... | ..... | ..... | ..... | ..... | ..... |
| 24½ | 11⅛ | 16⅞ | 10⅛ | 25 | N. Y. Pet. Royalty.. | 300 | 11 | 11 | 10¼ | 10¼ | — ⅛ |
| 18½ | 6⅜ | 11¼ | 6 | N.P. | North Central Texas | ..... | ..... | ..... | ..... | ..... | ..... |
| 19¼ | 8⅛ | 11⅜ | 7¼ | N.P. | Oilstocks Ltd. A..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 18¼ | 8½ | 11½ | 8½ | N.P. | do B..... | 100 | 10 | 10 | 10 | 10 | — ¼ |
| 26⅜ | 12⅛ | 19½ | 12½ | N P. | Pacific Western Oil... | 700 | 16 | 16 | 15 | 15 | — ½ |
| 3½ | ½ | 2½ | ½ | N.P. | Pandem Oil..... | 8,600 | 5/16 | 5/16 | ½ | ½ | — ⅛ |
| 10½ | 2¼ | 4⅜ | 1⅞ | N.P. | Pantepec Oil..... | 800 | 2 | 2 | 1¾ | 1¾ | — ⅛ |
| 25½ | 13⅛ | 15 | 13⅛ | $25 | Paragon Refg. B. ctfs. | 100 | 15 | *15 | 15 | 15 | + 1⅞ |
| 28 | 17 | 29 | 19⅛ | N.P. | Petroleum Corp..... | ..... | ..... | ..... | ..... | ..... | ..... |
| .... | .... | 5⅞ | 2⅝ | .... | do warrants..... | 1,800 | 3½ | 3½ | 3⅜ | 3⅜ | — ⅛ |
| 37 | 22 | 27½ | 20⅞ | N.P. | Plymouth Oil ..... | 1,600 | 27 | 27 | 26 | 26 | — 1¼ |
| 16 | 9 | 10½ | 8⅛ | $5 | Red Bank Oil..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 8⅛ | 1⅜ | 5⅜ | 2⅛ | N.P. | Reiter-Foster Oil..... | 700 | 3¼ | 3¼ | 3 | 3 | — ¼ |
| 25¼ | 19 | 23½ | 17½ | 25 | Richfield Oil pfd..... | 300 | 19½ | 19½ | 19½ | 19½ | + ½ |
| 29 | 13 | 25 | 14 | N.P. | Root Refining pr. pfd. | ..... | ..... | ..... | ..... | ..... | ..... |
| 11 | 3 | 8⅝ | 3⅝ | N.P. | Ryan Consolidated... | 100 | 4 | 4 | 4 | 4 | — ⅛ |
| 5⅞ | 1⅛ | 2½ | 1⅝ | 10 | Salt Creek Consol..... | 100 | 1¾ | 1¾ | 1¾ | 1¾ | 0 |
| 25⅞ | 9 | 15¼ | 8¼ | 10 | Salt Creek Producers | 1,300 | 11⅝ | 11¾ | 10¾ | 11⅝ | + ⅝ |
| 33⅛ | 10 | 8 | 7½ | 25 | Shreveport El Dorado | 400 | 7½ | *8 | 7½ | 7½ | 0 |
| .... | .... | 39⅛ | 39 | 25 | Signal Oil & Gas A.. | ..... | ..... | ..... | ..... | ..... | ..... |
| 24 | 9 | 17 | 9 | N.P. | Southland Royalty.. | 400 | 9¼ | 9¼ | 9 | 9 | — ½ |
| 12 | 4 | 10 | 5 | 5 | Sunray Oil..... | 500 | 5¾ | 5¾ | 5⅛ | 5⅛ | — ⅝ |
| 23 | 7⅛ | 15¼ | 8⅝ | N.P. | Texon Oil & Land... | 200 | 14 | 15 | 13⅞ | 15 | + 1 |
| 81⅛ | 8⅞ | 16 | 8 | 10 | Venezuela Mexico.... | ..... | ..... | ..... | ..... | ..... | ..... |
| 6½ | 1⅜ | 4½ | 2 | 5 | Venezuela Petroleum. | 300 | 2½ | 2½ | 2⅜ | 2⅜ | — ⅛ |
| 9⅜ | 2 | 5 | 2 | 1 | Woodley Petroleum.. | 100 | 4⅛ | 4⅛ | 4⅛ | 4⅛ | — ⅛ |
| 5⅜ | ¼ | 2½ | ½ | N.P. | Y Oil & Gas..... | 900 | ¾ | ¾ | ¾ | ¾ | 0 |

•New High †New Low

# New York Bonds

**Week Ending Aug. 8**

| | High | Low | Last | Change |
|---|---|---|---|---|
| Assoc. Oil gold 6s..... | 103 | 103 | 103 | — ⅛ |
| Atlantic Refg. deb. 5s... | 103 | 102 | 103 | +1 |
| Cal. Pet. 5s..... | 100⅛ | 100 | 100 | — ⅛ |
| Cal. Pet. 5½s..... | 102½ | 102⅜ | 102⅜ | + ⅛ |
| General Pet. 5s..... | 102½ | 102¼ | 102¼ | + ⅛ |
| Humble Oil & Refg. 5s.. | 102 | 102 | 102 | 0 |
| Humble Oil & Refg. 5½s | 102½ | 102¼ | 102¼ | — ¼ |
| Pan Amer. P & T 6s.... | 104½ | 103½ | 104 | + ½ |
| Pan Amer. P & T 6s.... | 92 | 92 | 92 | +2 |
| Phillips Pet. 5¼s..... | 96½ | 95⅞ | 96 | — ⅛ |
| Pure Oil 5½s..... | 100⅛ | 99¾ | 99¾ | 0 |
| Pure Oil 5½s..... | 99 | 98⅝ | 99 | + ⅛ |
| Richfield Oil of Calif. 6s. | 89¼ | 88½ | 88½ | — ½ |
| Shell Union Oil 5s..... | 98¼ | 97½ | 97¾ | + ⅛ |
| Shell Union Oil 5s with war..... | 99¾ | 99½ | 99⅝ | + ⅛ |
| Sinclair Con. Oil 7s..... | 104¾ | 104¼ | 104½ | — ⅛ |
| Sinclair Con. Oil 6½s... | 105¾ | 103½ | 105¾ | +2 |
| Sinclair Con. Oil 6s D... | 100⅛ | 100⅛ | 100⅛ | 0 |
| Sinclair Con. Crude 5½s. | 102⅜ | 102⅛ | 102⅛ | — ⅛ |
| Sinclair Pipeline..... | 102 | 101⅛ | 101⅛ | 0 |
| Skelly Oil 5½s..... | 96 | 95¼ | 96 | +1 |
| S. O. N. J. 5½s..... | 104⅝ | 104 | 104¼ | + ⅛ |
| S. O. N. Y. 4½s..... | 99½ | 99 | 99¼ | — ⅛ |
| Transcontinental Oil 6½s war..... | 109⅞ | 109½ | 109½ | 0 |
| Transcontinental Oil 6½s Ex-war..... | 101½ | 101 | 101½ | 0 |
| Union Oil of Calif. 5s C.. | 100⅝ | 100⅝ | 100⅝ | 0 |
| Union Oil of Calif. 5s war. | 100⅜ | 100⅛ | 100⅜ | + ⅛ |
| Warner-Quinlan 6s..... | 81½ | 81 | 81 | 0 |
| White Eagle Oil 5½s.... | 104¾ | 104 | 104 | — ½ |

# New York Curb Bonds

**Week Ending Aug. 8**

| | High | Low | Last | Change |
|---|---|---|---|---|
| Cities Serv. 5s '66..... | 82¾ | 82½ | 82½ | 0 |
| Cities Serv. 5s '50..... | 100½ | 97½ | 100 | +1 |
| Cities Serv. G. 5½s '42.. | 83 | 83 | 83 | — ⅛ |
| Cities Serv. G. P. 6s '43. | 92¾ | 92½ | 92¾ | + ⅛ |
| Cont. Oil 5¼s '37..... | 97¾ | 97 | 97¼ | + ⅛ |
| Empire O & R 5½s '42.. | 84½ | 83 | 84½ | + ⅝ |
| Gulf Oil 5s '37..... | 103 | 102 | 103 | 0 |
| Gulf Oil 5s '47..... | 103½ | 102½ | 103 | 0 |
| Indep. Oil 6s '39..... | 104 | 104 | 104 | + ½ |
| Sun Oil 5½s '39..... | 102 | 102 | 102 | + ½ |

# Pittsburgh Stock Exchange

**Transactions Week Ended Aug. 8, 1930**

| | Sales | High | Low | Last | Change |
|---|---|---|---|---|---|
| Ark. Nat. Gas.... | 850 | 9¾ | 9¼ | ... | —1⅛ |
| do pfd..... | 94 | 8 | 7⅞ | 8 | 0 |
| Lone Star Gas.... | 2,912 | 39⅞ | 36½ | 37¼ | —1¾ |
| do pfd..... | 120 | 106⅞ | 106 | ... | 0 |
| Plymouth Oil.... | 700 | 27½ | 26 | ... | —1 |
| Phoenix Oil..... | 6,000 | .60 | .50 | .60 | 0 |
| Shamrock O. & G. | 6,871 | 22 | †16¾ | .. | —1½ |
| Shamrock Oil & Gas 6's..... | 4,000 | 103 | 102 | 103 | +3 |